MARS NEEDS RFID
NASA plans to test RFID tags in outer space to see if they're fit for a mission to Mars. PAGE 7

SECURITY MANAGER'S JOURNAL
Bad news: Top execs bought smart phones, without input from security manager C.J. Kelly. PAGE 34

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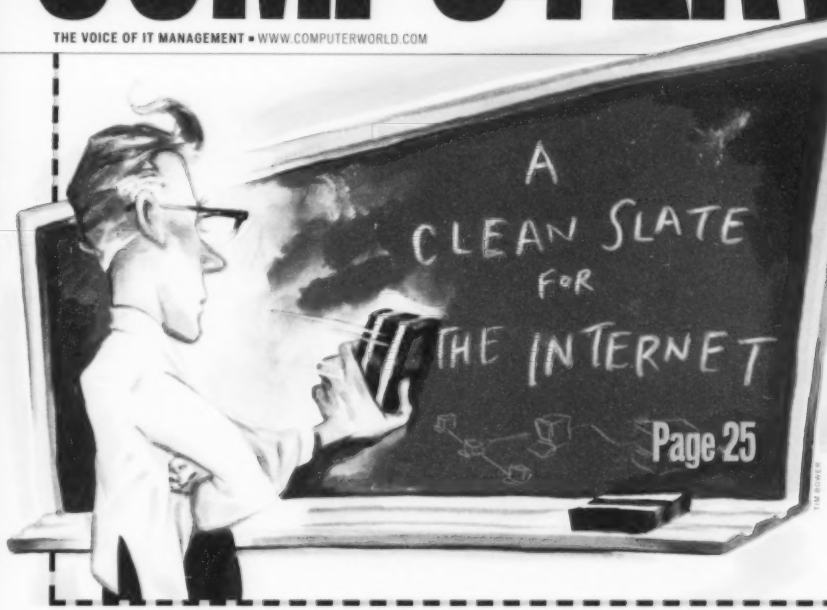


Spam, **phishing**, hackers, **viruses**, **botnets**, porn and **crushing complexity** – is it **time** for a **fresh start?**

Gary Anthes looks into what's possible.

Drives Destroyed as Governor Exits

Arkansas IT unit helped Huckabee expunge data

BY LINDA ROSENCRANCE

Former Arkansas Gov. Mike Huckabee, a potential candidate for the 2008 Republican presidential nomination, ordered the destruction of hard drives from nearly 90 computers before leaving office last month — a controversial move in which his office was assisted by the state's IT department.

Drives that had been used in 83 PCs and four servers were destroyed, according to Claire Bailey, director of the Arkansas Department of Information Systems. In an interview, she said that the DIS backed up data from the servers but not from the PCs and then gave the backup tapes to Huckabee's former chief of staff.

INSIDE
The indictment of a county coroner shows that IT can't blindly trust users, says Frank Hayes. Page 46

Bailey said a DIS staffer worked with representatives from Huckabee's office "to determine the mechanism for [his] transition out of office" from an IT perspective. She added that she believes Huckabee's representatives were provided with options for handling sensitive data stored on the state's systems as part of that process.

The governor's office chose a combination of writing over the data and destroying the hard drives, Bailey said. That approach, she noted, follows DIS guidelines, which recommend that in cases involving the deletion of sensitive data,

Huckabee, page 16

IT Faces Networks Without Borders

Web apps shift security focus from perimeter defenses to data protection

BY JAIKUMAR VIJAYAN
SAN FRANCISCO

As end users at different companies conduct more business with one another via the Web, corporate information security strategies are being turned inside out — literally.

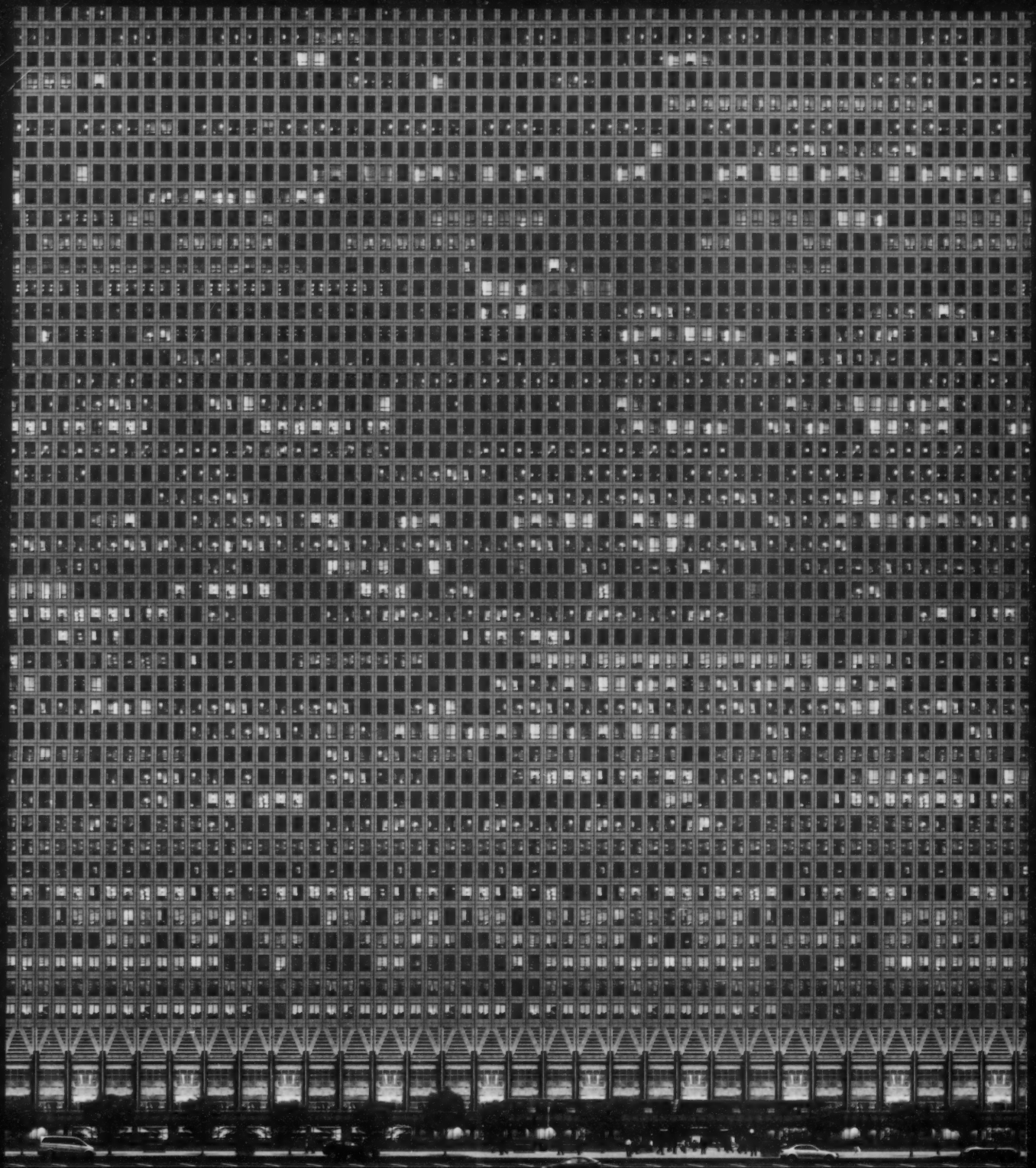
Corporate security managers have spent many years and tens of billions of dollars erecting sophisticated defenses designed to keep intruders out of their networks. But they're discovering that the network perimeter isn't what matters so much anymore. Now what's important is protecting the data within those walls, said security managers at the RSA Conference 2007 here last week.

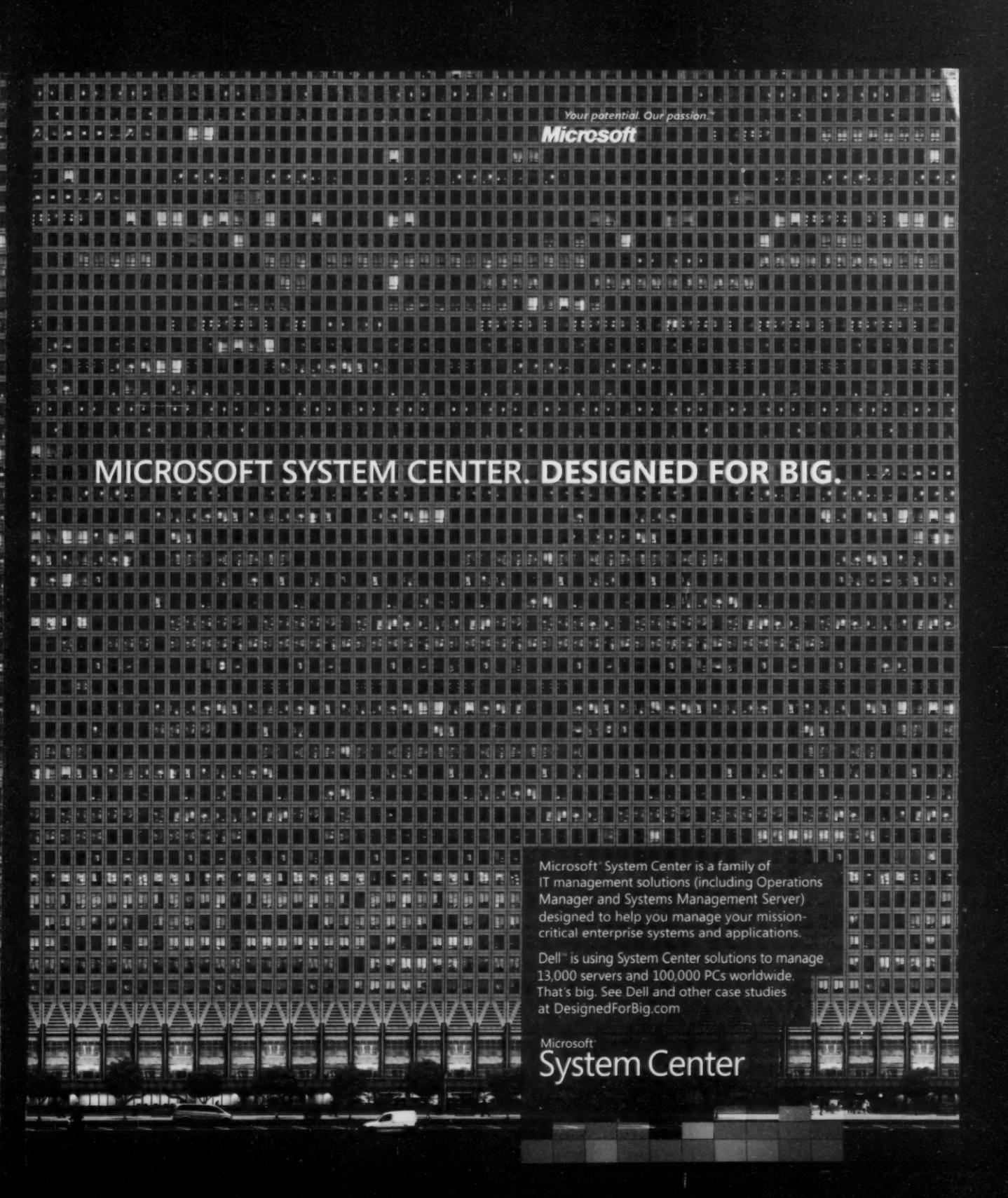
That realization is being

Security, page 45

> "Every day, you're creating more and more openings in the firewall, so it isn't even a firewall anymore."
>
> DEVEN BHATT, DIRECTOR OF CORPORATE SECURITY, AIRLINES REPORTING CORP.

NEWSPAPER

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7 Application streaming technology being rolled out by Citrix could enable users to untether themselves from servers.

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12 State legislators in Minnesota and Texas have proposed laws requiring government agencies to adopt the OpenDocument file format, following the lead of officials in Massachusetts.

16 Business Objects turns an eye toward the midmarket, creating a business unit and unveiling tools for companies with annual revenues of less than $1 billion.

18 Global Dispatches: Former Soviet leader Mikhail Gorbachev issues an appeal to Microsoft in a Russian software piracy case; and a German court rules that police can't install spyware on the computers of suspected criminals.

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BI & Search: A Marriage of Convenience

Pairing business intelligence software and enterprise search technology could simplify the quest for corporate data by giving users tools that are as easy to work with as a Google search box. **PAGE 30**

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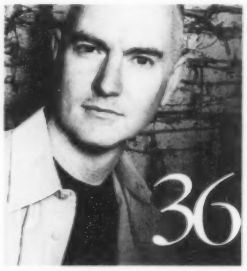

32 Career Watch. CIOs reincarnated as consultants; IT budgets on the rise; the skinny on multitasking; and secrets of employee recognition.

34 Security Manager's Journal. Being Smart About Smart Phones. When C.J. Kelly discovers that her executives have bought smart phones without her knowledge, she has to wonder how bad that can be.

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22 Michael Gartenberg detects a new reality bonding users and their IT departments.

23 Bruce A. Stewart says IT can play a key role in helping companies hold on to hires from the digital generation.

38 Bart Perkins believes that the more effort you invest in postproject reviews, the more insights and improvements you will generate.

46 Frankly Speaking: **Frank Hayes** says a county coroner's indictment is a reminder that blindly trusting users isn't a very good idea.

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The Next Big Thing in Mobility

MOBILE/WIRELESS: Several experts take a look at what happened with some previous "big things" and predict what's in store.

www.computerworld.com/mobilewireless

Five Ways to Bend Windows Vista to Your Will

OPERATING SYSTEMS: Got Vista already? Make it your own with these five easy customization tweaks.

www.computerworld.com/software

Opinion: Vista Firewall Lacking

NETWORKING: Two-way filtering is touted as a new security feature, but Preston Gralla discovers it's impossible to practically configure outbound filtering.

www.computerworld.com/networking

Blade Server Tips and Tricks

HARDWARE: Early adopters of blade servers advise planning ahead, especially when it comes to heating, cooling and space.

www.computerworld.com/hardware

Testing, Testing

SECURITY: CISA and CISM exam results are due. Did you make the grade, or will you be hitting the books again? Columnist Jon Espenschied says not passing the rigorous exam isn't the end of the world — and passing it doesn't necessarily mean the end of your career flexibility.

www.computerworld.com/security

iPod Going to Flash?

STORAGE: Analysts are saying that Apple will change the video iPod's storage from a spinning disk to a solid-state disk later this year. The company will also add a wider screen and support for GPS and Wi-Fi.

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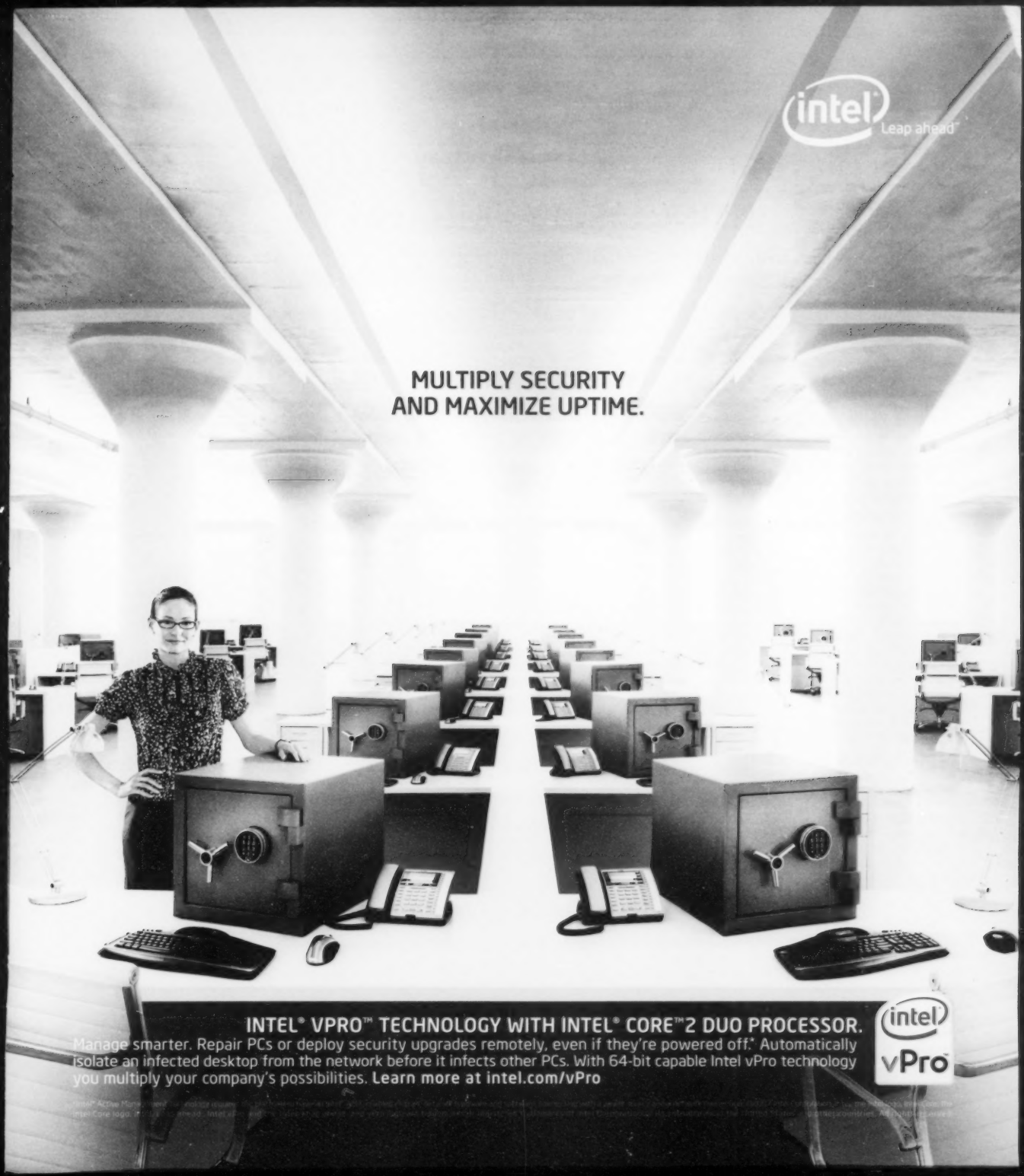
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AT DEADLINE

Johns Hopkins Loses Worker, Patient Data

Computer backup tapes containing personal information on 135,000 Johns Hopkins University workers and 83,000 Johns Hopkins Hospital patients were lost last month. Johns Hopkins officials said the data was stored on nine backup tapes that were shipped in late December by courier to a Baltimore area contractor but were not returned. They said the data has likely been destroyed. Johns Hopkins has set up Web sites and toll-free numbers to answer questions from workers and patients.

Cisco Exec Quits Amid Reorganization

Mike Volpi has resigned as senior vice president and general manager of Cisco Systems Inc.'s Routing and Service Provider Technology Group. A spokesman said the move "coincides" with a reorganization of that unit, but the shake-up was not the reason for his resignation. Senior Vice Presidents Tony Bates and Pankaj Patel will take over management of the renamed Service Provider Technology Group.

Microsoft to Issue 12 Security Updates

Microsoft Corp. plans to issue a dozen security updates tomorrow to patch vulnerabilities in Windows, Office, Visual Studio and its antivirus software. The list includes five patches for Windows vulnerabilities and two for Office. At least five of the updates are pegged as "critical," the most serious ranking in Microsoft's rating system.

Cisco Buys Social Networking Tools

Cisco has agreed to acquire Five Across Inc., a maker of social networking software, for an undisclosed price. Cisco said it expects the deal to close by April 30. It plans to use Five Across Connect Community Builder software to help companies create applications that let them connect with customers.

Latest Mobile Devices Tempt Users but Test IT

Companies face hurdles on adopting iPhone and other consumer gadgets

BY MATT HAMBLEN
GRAPEVINE, TEXAS

NEW MOBILE devices, such as the iPhone and the OQO ultramobile PC, are putting pressure on IT managers to address compatibility and security challenges that could create roadblocks to corporate uses of the technologies.

Apple Inc.'s iPhone and OQO Inc.'s Model 02 mobile PC were both announced in January. Last week, the devices seemed to be front and center in the minds of attendees at Gartner Inc.'s Wireless & Mobile Summit 2007 here.

IT managers flocked to a small OQO booth to view the San Francisco-based vendor's 1-lb. ultramobile unit, which has a 5-in. display and can run either Windows Vista or Windows XP Professional.

The OQO system "is pretty neat" and might help reduce the need for users to lug 8-lb. laptops with them on business trips, said George Genevezos, a senior IT security analyst at Sabre Holdings Corp. in Southlake, Texas.

Other conference attendees voiced admiration for the unit's clear display, small docking station and Bluetooth-capable keyboard. But there was no question that mobile devices like the OQO will pose challenges to many IT managers.

Consumer Tech Embrace

Sabre, which has about 10,000 employees globally, is wrestling with how to embrace technologies popular with consumers, Genevezos said. The travel company has given BlackBerries to some executives. But most of Sabre's workers still rely on desktops.

Dealing with security "is a game of catch-up for everybody in IT because there are so many new devices and so many vendors," Genevezos said, adding that the underlying security technology is "not there" for such products.

Dave Cogswell, director of technical services at Data-Tronics Corp. in Fort Smith, Ark., said mobile devices have begun proliferating much faster over the past two years. "Every quarter, there's a new cell phone to consider," he said.

Data-Tronics provides IT services to the operating units of Arkansas Best Corp., a transportation holding company in Fort Smith. Cogswell said Data-Tronics has simplified the gear that it needs to support for end users by deploying a limited number of mobile devices and operating systems.

OQO's new ultramobile PC weighs just 1 lb.

For example, about 4,000 truck drivers at Arkansas Best's ABF Freight System Inc. subsidiary use Sprint Nextel phones, and Data-Tronics also supports "several thousand" handhelds that run Windows Mobile and are Wi-Fi capable, said Cogswell. Eventually, he said, Data-Tronics will search for a phone that supports both Wi-Fi and cellular calls.

An IT manager at a Boston area university said products such as the iPhone will require IT professionals to find ways to support more devices than they imagined even a year ago.

The IT manager, who asked not to be identified, said that about 30% of the users at the university have Macintosh computers and will probably want to try the iPhone.

Gartner analyst Nick Jones said 2007 has already emerged as a year when IT managers will face multiplying options for mobile computing — and they will have to choose not only among a variety of hardware devices but also among operating systems, such as Windows Mobile and the Symbian OS favored by Nokia Corp. "Confusion is definitely rising," Jones said. ▸

Laptops May Lose Out to Handhelds on Business Trips

GRAPEVINE, TEXAS

RELIEF MAY BE in sight for road warriors who are weary of lugging their laptops from city to city, along with batteries, cables, peripherals – and perhaps even portable slide projectors for making presentations.

Within two years, new smart-phone technologies will enable the development of lightweight devices that support e-mail, word processing and slide presentations, Gartner analyst Nick Jones predicted at the consulting firm's Wireless & Mobile Summit 2007 here last week. Being able to leave their laptops behind while traveling would be a blessing for many users, he said. "Face it – it's a brick that just sits there," he added.

Although users can run e-mail and other applications on handhelds, the inability to run PowerPoint or other slide presentations off the devices is a big problem, Jones said. But he predicted that as early as next year, vendors will begin shipping devices with native VGA output ports for projectors. Several handheld makers have put VGA outputs on their product road maps, including High Tech Computer Corp., which will be offering the upcoming HTC X7500 device, Jones said. He added that by 2009, there should be "a good range" of mobile devices that could replace laptops on short business trips.

Bob Bracey, a systems integrator at Florida Technology Inc. in Jacksonville, Fla., said he's familiar with the cry from users for fewer and lighter devices. "We hear that all the time," he said, adding that Florida Technology is working with a company that is rolling out unspecified devices to about 5,000 salespeople.

Bracey said he's hopeful about the HTC X7500, which will have a screen about 5 in. wide – larger than existing smart-phone screens but much smaller than those on laptops.

Previously, many executives wanted a Sony Vaio notebook because it's lightweight, according to Bracey. But carrying the peripherals that come with the Vaio has detracted from its appeal, he said. In addition, many small laptops "still take too long to boot," he said, pointing to the instant-on capabilities of smart phones and other smaller devices as one of their big selling points.

Neal Dillard, chief of WAN management for the federal court system in Washington, said he would like to travel with only his BlackBerry. But he's usually unable to do so because he frequently needs to make presentations.

Dillard and his staff support BlackBerries and other handhelds for nearly 30,000 U.S. Courts users. He said that like himself, "they want to be able to do their work anywhere."

The increasing functionality of handhelds is a good example of how consumer technologies are really driving what will be used in the workplace in coming years, Jones told IT managers at the conference. "All the cool innovations come from the consumer side," he said.

– MATT HAMBLEN

NASA Testing RFID Chips for Trip to Mars

Wants to see whether the technology can survive in outer space conditions

BY MARC L. SONGINI

The National Aeronautics and Space Administration this summer plans to begin testing whether radio frequency identification technology can survive in outer space.

Agency officials said the test is the first step in an effort to determine whether RFID chips could be used in a manned mission to Mars.

Fred Schramm, administrator for the internal research and development program at the NASA Marshall Space Flight Center in Huntsville, Ala., said a variety of paper and plastic RFID tags will be on board the U.S. space shuttle *Endeavour*, which is slated to launch in July on a voyage to the International Space Station.

The Gen 2 passive RFID chips will be stored in a case attached to the outside of the station and left there for about a year to determine how they are affected by atmospheric conditions, Schramm said. In the test, the chips will be exposed to the extreme heat and cold, ultraviolet radiation and near-vacuum that exist in low orbit, he said.

After the test, NASA will determine whether the weight of RFID chips used in the experiment could cause problems in a space mission; whether the atmospheric conditions will degrade tags so they can't be used; and which materials, such as silicon or copper, work best in space, he said.

To the Moon and Beyond

If those tests are successful, Schramm said the technology will be further evaluated on a rocket that is scheduled to take off in 27 months to conduct tests for a future planned moon launch. "Most things that will work with the moon will work with Mars, and we're working with the moon in mind," he noted.

Schramm said the agency hopes RFID technology can be used to monitor and manage inventory on a spacecraft and to track internal and external environmental conditions both on missions to the moon and on future manned flights to Mars.

"If you think of the moon, that's not very far — it's only a few days away. But Mars is 34 million miles away," Schramm said. "If you think of going to Mars, you carry a lot of stuff with you."

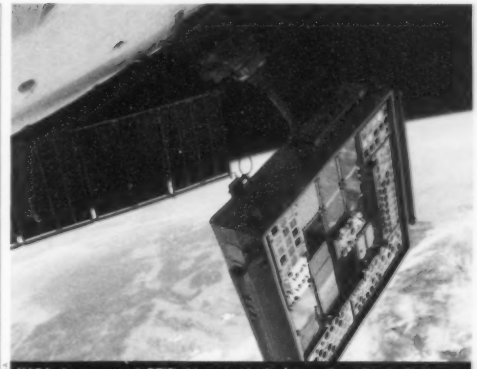
He also noted that astronauts can't immediately input data into systems when working outside a spacecraft, which could lead to mistakes. RFID technology could help solve that problem, he noted.

"If they're inside," he added, "we'd rather have them doing other things. We want automatic inventory registration." For instance, if a food package is passed from one cabin to another for an astronaut to eat, the RFID-enabled system would register that the package is in fact gone and no longer available.

If the technology is found to work under such conditions, Schramm said that RFID tags could also be placed on any part of a spacecraft and on anything inside it, allowing data to be transported directly to a local network within the spacecraft or signaled back to Earth.

As in a warehouse on Earth, RFID readers would be positioned in key locations within and outside the spacecraft to collect data, Schramm said. The technology could also be used to manage the complex vehicles and systems used in space exploration. Such applications are viable only if the technology can withstand outer space, he noted.

The RFID chips used in the test will be developed by NASA partner Intermec Inc., an Everett, Wash.-based manufacturer of RFID and supply chain systems.



NASA plans to attach RFID chips outside the International Space Station.

An Intermec spokesman said the company is confident that plastic RFID technology will work in outer space. He also noted that commercial applications could result from the use of the technology in such conditions.

Aerospace and defense agencies and corporations have been using RFID technology in recent years for supply chain inventory management, said Michael Liard, an analyst at ABI Research in Oyster Bay, N.Y. However, he said this is the first time he has ever heard of testing RFID in space.

Citrix Upgrade Untethers Mobile Users From Servers

App streaming shifts processing workloads to PCs

BY PATRICK THIBODEAU

Road warriors have never been a perfect fit for Citrix Systems Inc.'s server-based applications because they require continuous connectivity. But in a software upgrade being announced today, Citrix is adding application streaming capabilities designed to help cut the umbilical cord between users and servers.

Citrix officials said Presentation Server 4.5 can offload processing work from a server to a laptop or, for that matter, to a desktop PC. Thus, mobile users can disconnect their systems from a Citrix server but still get full functionality.

The ability to shift some processing to PCs may also let IT managers increase the number of Citrix users per server. At least that's the hope of Susan Paul, IT director at Fallon Clinic Inc., a health care provider in Worcester, Mass.

Fallon currently runs clinical applications on 35 Citrix servers supporting about 50 users each. Paul wants to use Citrix's software to run business applications for 300 to 500 new users. She said the application streaming capability should enable her to more than double the number of clients she now has per server.

"We can move more people over to Citrix without necessarily having to severely beef up our Citrix farm," Paul said.

Retaining Control

With streaming, an application sent to a user's system is held in an "isolation container" on the device itself, said Dave Roussain, vice president of product marketing at Fort Lauderdale, Fla.-based Citrix.

Even if the system is rebooted, the application remains in place. But IT administrators have control over it, and if an application is updated on a server, the update is sent to each client, Roussain said.

Other major IT vendors have also become interested in streaming technology, which offers security improvements compared with running applications locally on laptops.

Late last month, Symantec Corp. said it planned to buy Altiris Inc., an application streaming and management vendor. Microsoft Corp. already offers an application streaming product called SoftGrid, which it acquired when it bought Softricity Inc. last July.

Citrix Presentation Server 4.5

New features include:

- A performance monitoring tool that shows application performance from an end user's perspective.
- New technology that Citrix says will speed up graphics-intensive applications.
- Single sign-on capabilities for multiple applications.
- Pricing and availability: $350 per concurrent user; expected to ship next month.

"Security and remote access is a huge pain point for enterprises," said Natalie Lambert, an analyst at Forrester Research Inc. "If you want to talk about the future of the computer world, it is this ability to securely deploy and manage [applications]."

Andrew Jurczyk, CIO at Sonnenschein Nath & Rosenthal LLP, said the Chicago-based law firm uses Citrix's software to support attorneys who travel worldwide and are "not always in a connected state." And in some cities, the law firm sets up what it calls a "war room" in hotels that lawyers use to manage cases.

The staffers in the war rooms may need access to additional applications as they work on a case, Jurczyk said. He now hopes that he'll be able to deliver new applications to the remote workers via Citrix's streaming technology.

"It's like that missing piece," Jurczyk said. "Mobility is a very big part of our solution and strategy."

BRIEFS

Capgemini Buys U.S. Services Firm

Capgemini SA has agreed to acquire Software Architects Inc. as part of an effort to expand its presence in U.S. cities. Paris-based Capgemini said that Software Architects provides project management, architecture and business technology services. Software Architects, which has a workforce of 500 and 2006 revenue of about $68 million, will be folded into Capgemini subsidiary Sogeti USA LLC. Terms of the deal were not disclosed.

Spy Case Lawyer Joins HP Staff

Hewlett-Packard Co. appointed as its new general counsel the outside lawyer it hired last year to investigate a spying scandal at the company. Mike Holston, a partner at Morgan, Lewis & Bockius LLP, succeeds Ann Baskins, who resigned in September in the midst of an outcry over HP's attempts to find the source of leaks from board members to reporters.

Akamai Acquires Netli for $170M

Akamai Technologies Inc. has agreed to acquire Netli Inc., a provider of services to help accelerate content and services online, for about $170 million. The deal is expected to close by the end of this quarter. Akamai said it expects the combination of Netli's high-performance communications protocol and Akamai's global scale to make it possible to reroute Internet traffic around points of congestion.

Former CA Exec to Lead Security Firm

Application Security Inc., a maker of database security tools, has named Toby Weiss president and CEO. Weiss had been senior vice president and general manager of CA Inc.'s security management business unit. At Application Security, Weiss replaces Jack Hembrough, who was named chairman of the company's board of directors.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL

MATTHEW PAKULSKI

IT's Finger-pointing Problem . . .

. . . may get slapped down. Srinivas Ramanathan, CEO of Singapore-based eG Innovations Pte., says the biggest challenge IT help desks face when end users complain about a pokey or dead application is figuring out where to point the finger of blame. In comparison, actually fixing a technical problem is easy, he claims. Large IT organizations are divided up into "silos of expertise," and help desk staffers are stuck "setting up the bridge call among the silo experts," Ramanathan says. "But no one wants to admit the problem is in their domain." Naturally, he claims that if your help desk personnel had a monitoring tool like eG's Enterprise Suite, they could readily isolate the silos in which problems exist, eliminating both bridge calls and finger-pointing. The software uses a universal agent to collect metrics on all manner of IT systems. Enterprise Suite 3.3, which is due at month's end, will include the ability to monitor Microsoft Corp.'s Terminal Services tools. The upgrade will let IT managers see metrics on how users and applications, either individually or in groups, are affecting the performance of Windows terminal servers. That data can be combined with other metrics to pinpoint problems, says Ramanathan. The upgrade also adds the ability to monitor open-source middleware, such as Tomcat and JBoss, as well as Hewlett-Packard Co.'s discontinued Tru64 Unix systems. Pricing starts at $625 per agent.

Eliminate IT finger-pointing, says RAMANATHAN.

Battery performance gets a bit . . .

. . . of a boost. During the second quarter, Boston-Power Inc. in Westboro, Mass., plans to deliver to PC makers the first batch of a new line of lithium-ion batteries for laptops and other mobile devices. CEO Christina Lampe-Onnerud says that compared with processor speeds or disk capacity, battery performance has improved only slightly since PCs went mobile in the 1980s. But, she claims, users with laptops that have Boston-Power's Sonata batteries will be able to recharge their machines to 80% of capacity within 30 minutes. And, she says, users won't have to replace the batteries in their laptops as often. The amount of time Sonata's batteries last between charges won't be any greater than that of existing lithium-ion batteries — about three hours. But Lampe-Onnerud says her devices will hold the same charge consistently over the years. Expect to see Sonata-equipped products by Christmas.

Performance boost for batteries nigh, boasts LAMPE-ONNERUD.

Predict a storage capacity crisis . . .

. . . before one occurs. If you've ever had to scramble to add disk capacity to an application, you know it can be a major hassle. That's probably why so many of you "cheat" by allocating more storage capacity than most apps need. The problem with that approach, says Ray Villeneuve, CEO of MonoSphere Inc. in Redwood City, Calif., is that IT is diverting dollars from other projects to pay for unnecessary disk space. He cites a survey of 140 IT storage professionals conducted by his company in December. More than one-third of the respondents — 36% — said excess storage outlays hurt other IT work. According to Villeneuve, MonoSphere's Storage Horizon software lets you devise complex queries to find excess capacity on your storage-area network (SAN) that can be used by storage-strapped apps, thus avoiding the need to buy more disks. And, he says, the software includes analytics that can forecast when you're likely to run out of disk space. Version 3.0, released late last month, also maps the relationships between applications and storage usage and provides trending data. An upgrade due in the second half of the year will include performance metrics for SANs; for example, you'll be able determine whether you have enough network bandwidth to handle all your data reads and writes.

67% Respondents in MonoSphere poll who said storage costs are rising faster than overall IT budgets.

There's lots of Web 2.0 talk . . .

. . . but where's the real action? Most serious commercial Web sites are experimenting with advanced capabilities that you can get with AJAX technology. But most of those same sites tend to be stuck with Web 1.0 search tools. Michael Schmidt, CEO of Siderean Software Inc. in El Segundo, Calif., wants you to pay a visit to the beta version of the Oracle Technology Network Semantic Web, an Oracle Corp. Web site that uses Siderean's Seamark Navigator search software. Schmidt thinks it will give you a flavor for what Web 2.0 might offer, at least as far as search goes. Seamark Navigator doesn't just index and search data within the Oracle domain, it also crawls external Web sites, blogs and podcasts that contain related material. Brad Allen, Siderean's chief technology officer, points to "tag clouds" that visually show high-traffic items, indicating information that others think is valuable. That, he says, can be helpful when you're looking through myriad forum posts. Pricing starts at about $125,000. ▸

5M Approximate number of members of the Oracle Technology Network.

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Microsoft Pushes to Make Mobile OS More Capable

Users look for improvements, but analyst calls upgrade 'interim release'

BY MATT HAMBLEN

MICROSOFT CORP. today plans to announce the latest version of its Windows Mobile operating system, with new features such as native support for its push e-mail technology and more PC-like display capabilities.

Devices based on the Windows Mobile 6 software are expected to become available in April or May, said John Starkweather, group product manager for Microsoft's mobile and embedded devices division.

But Gartner Inc. analyst Ken Dulaney last week called Windows Mobile 6 "an interim release" in advance of a larger upgrade, code-named Photon, that is due next year. "This is not a major release," he said during a presentation at Gartner's Mobile & Wireless Summit 2007 in Grapevine, Texas.

Data-Tronics Corp. in Fort Smith, Ark., has deployed several thousand devices running Windows Mobile 5.0. Dave Cogswell, director of technical services at the IT unit of Arkansas Best Corp., said at the conference that he hopes the new operating system will ease technical problems and inconsistencies his staff has encountered in setting up communications services with different wireless carriers.

"It's a configuration issue with IP connectivity [involving] the Windows Mobile driver," Cogswell said.

Jim Parker, lead architect for IT services at PepsiCo Inc. in Purchase, N.Y., said he's eager to hear more about the promised improvements coming in Windows Mobile 6. PepsiCo is rolling out Windows Mobile 5.0 on ruggedized devices from Intermec Technologies Corp. for use by about 18,000 Frito-Lay delivery drivers.

Call for Improvement

Dulaney, however, said Windows Mobile 6 doesn't address all the problems in the previous version, such as the carrier connection issues that Cogswell cited.

"The difficult challenges are not fixed in 6," Dulaney said. With Windows Mobile, he added, Microsoft "hovers around the line of being good enough. I would challenge them to be excellent."

According to Dulaney, Windows Mobile 6 includes some welcome new features, such as integration with Microsoft's Office Communications Server software and support for encrypting data on storage cards within devices. But, he said, the new software can't synchronize data with Windows CE, Microsoft's operating system for embedded devices.

Microsoft is introducing Windows Mobile 6, which is code-named Crossbow, at the 3GSM World Conference in Barcelona, Spain, this week. Starkweather said users with devices based on the new version will be able to view e-mails in their original HTML formats.

In addition, text and images typically will be displayed on the small screen of a device running Windows Mobile 6 much as they would be on a conventional PC, according to Starkweather. For example, he said that users will be able to view, navigate and edit Outlook, Word, Excel and PowerPoint documents without losing any tables, images or text. Such losses are a common occurrence now, he added.

> **"The difficult challenges are not fixed in 6. [Microsoft] hovers around the line of being good enough.**
>
> KEN DULANEY, GARTNER INC. ANALYST, ON WINDOWS MOBILE 6

Microsoft already offered its Direct Push e-mail technology to Windows Mobile 5.0 users via an add-on Messaging and Security Feature Pack. The push capabilities will be built directly into the new version of the mobile operating system, Starkweather said, enabling users to receive up-to-date e-mail deliveries and automatically synchronize Outlook calendar and contact listings through Microsoft's Exchange Server software.

Health System Starts Linking Patient Data

Indexing system to form basis for electronic records

BY HEATHER HAVENSTEIN

Baylor Health Care System has completed the initial phase of an effort to link fragmented data from its disparate systems to establish a 360-degree view of its patients.

The Baylor project, started about a year and a half ago, is aimed at creating an enterprise view of data for patients treated at the Dallas-based health care provider's 12 hospitals, said Scott Schoenvogel, assistant vice president of the revenue cycle.

Baylor expects that the system will eventually be used as the foundation of a patient's comprehensive electronic medical record.

In the first phase of the project, Baylor opted to use Identity Hub data integration software from Initiate Systems Inc. to link registration data from each of the hospitals in its network, Schoenvogel said. Thus, a patient entering any of the facilities has to go through the lengthy registration process only once, he noted.

"It really lets us carry certain core information about a patient from one place in the health care system to the next," Schoenvogel said. The long-term goal is to link data from multiple sources — not just the registration system — in the health care network, he added.

With the first phase of the project complete, patient information is funneled through the new software, which scours existing registration data to see if the health system already has a file for that person.

Later this year, Baylor plans to launch the next phase of the project, which will involve checking for a patient identifier match in real time during the registration process, Schoenvogel said.

The key goal of the project is to solve one of the most vexing problems facing health care organizations looking to share patient data internally or with other entities: ensuring that data in e-health records is matched to the correct patient.

"We have to be able to link literally hundreds of different data repositories together to create that continuous record," Schoenvogel said. "We need to be sure that the information we have produces a match to another record."

COURTESY BAYLOR HEALTH CARE SYSTEM

Baylor Health is implementing an integrated registration system to connect patient data among its 12 hospitals.

The project has not been without challenges — including coming to terms with the fact that no system, including this one, can guarantee that the correct patient records will be accessed every time, Schoenvogel said.

Instead, the software provides a probability that certain records should be associated with a patient. As part of the first phase, the organization had to establish an acceptable probability level associated with different processes and put in place manual review procedures for when that level is not met, he added.

Moreover, Baylor took two months to build interfaces and set up the data formatting for existing registration systems at each hospital, Schoenvogel said.

Forrester Research Inc. analyst Eric Brown said Baylor is among a handful of early users of integration tools to index patient records.

"What Baylor is trying to do is central to a transformation in health care overall," he said. "The thrust in health care right now is to create the 360-degree view of the patient."

But just as commercial companies have gone through the pain of trying to link customer and supply chain data, organizations implementing this type of project face myriad challenges, he added.

For example, the health care industry is made up of a variety of entities that run a wide range of systems and use many different means of identifying patients, Brown said.

"Unlike screwing up a direct-mail campaign or a manufacturing order," he noted, "combining two people's medical records has potentially life-threatening implications."

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BRIEFS

Hitachi to Acquire Storage Company

Hitachi Data Systems Corp. has agreed to acquire storage management company Archivas Inc. Terms of the deal were not disclosed. Under a reseller agreement between the firms signed early last year, Archivas provides the software component that powers the Content Archive Platform's Hitachi Content Archiver, which is used to control, authenticate, preserve and protect data stored in the system.

HP Agrees to Buy Bristol Technology

Hewlett-Packard Co. has agreed to acquire business transaction monitoring software vendor Bristol Technology Inc. for an undisclosed sum. HP said that it expects the acquisition will let the company beef up the business technology optimization offerings it gained last year with its purchase of Mercury Interactive Corp. The deal is expected to close within 30 days.

Ingres Unveils Eclipse Tool Set

Ingres Corp. has unveiled a software bundle to make it easier for developers to build Eclipse-based applications on top of its open-source database. The Ingres Eclipse Bundle includes the Eclipse framework and tools for developing and running Java applications. Ingres offers similar bundles for the Python, PHP and Perl scripting languages.

Greenplum Hires Ex-Sun Exec as CEO

Greenplum Inc., a provider of open-source database technology, has named former Sun Microsystems Inc. executive Bill Cook as CEO. Cook had been senior vice president of sales at Sun before leaving to head the sales and services operation at Penguin Computing Inc., a maker of Linux-based hardware. Greenplum said it has completed a $15 million round of financing from an investment group led by Sierra Ventures.

Texas, Minn. Bills Propose Statewide ODF Standards

Follow Mass. in seeking alternative to Microsoft Office file format

BY ELIZABETH MONTALBANO

STATE LEGISLATURES in Minnesota and Texas are considering bills calling for the adoption of the Open Document Format for Office Applications, or ODF, as the standard file format for their state government documents.

If the bills are approved, the two states would follow the lead of Massachusetts, which has designated ODF as a standard for its executive branch agencies. ODF is an alternative to the widely used file formats in Microsoft Corp.'s Office desktop software suite.

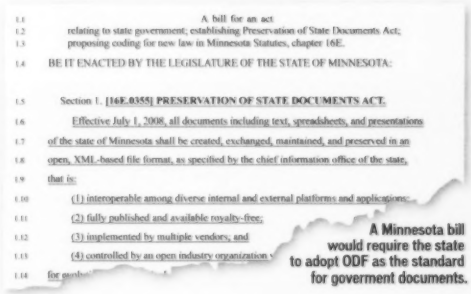
BETZOLD: Aim is to avoid licensing agreements.

The proposed Minnesota bill, authored by state Sen. Don Betzold, would require state agencies to use an open, XML-based file format that is "interoperable among diverse internal and external platforms and applications; fully published and available royalty-free; implemented by multiple vendors; and controlled by an open industry organization with a well-defined inclusive process for evolution of the standard." The mandate would take effect on July 1, 2008.

The Texas bill, which has requirements that are similar to the Minnesota legislation, would give the Texas Department of Information Resources until Sept. 1, 2008, to develop a transition plan.

Though neither bill identifies a specific document format, Betzold confirmed that ODF is the file format described in his proposal.

"ODF is the standard intended," he said. "It is my goal to make sure that the public has access to electronic documents in the years to come and that we do not have to rely on licensing agreements or code access."



A bill for an act

relating to state government; establishing Preservation of State Documents Act; proposing coding for new law in Minnesota Statutes, chapter 16E.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. [16E.0355] PRESERVATION OF STATE DOCUMENTS ACT.

Effective July 1, 2008, all documents including text, spreadsheets, and presentations of the state of Minnesota shall be created, exchanged, maintained, and preserved in an open, XML-based file format, as specified by the chief information office of the state, that is:

(1) interoperable among diverse internal and external platforms and applications;

(2) fully published and available royalty-free;

(3) implemented by multiple vendors; and

(4) controlled by an open industry organization

A Minnesota bill would require the state to adopt ODF as the standard for goverment documents.

Advocates See Victory

ODF was accepted as a standard by the International Standards Organization (ISO) last spring and is supported by major technology vendors, including IBM, Sun Microsystems Inc. and Google Inc.

Proponents of ODF view the Texas and Minnesota bills as another victory in the battle to make it a viable alternative to the Open XML formats built into Office 2007.

"After Massachusetts, the ODF genie is out of the bottle here in the U.S.," Marino Marcich, managing director of the ODF Alliance advocacy group, said via e-mail. "We're encouraged that Texas and Minnesota seem to be following suit."

However, Microsoft has proposed the Office Open XML file format as a standard to the ISO, which is considering the company's submission (see story at left). If approved, that could enable both ODF and Open XML to qualify as open, XML-based file formats.

In an e-mail statement, Microsoft said it supports customer choice and interoperability and urges governments to do so as well. However, the company does not approve of governments mandating the use of only one standard for file formats, the statement said.

Wider adoption of ODF would likely boost demand for ODF plug-ins, which can translate documents between that file format and Microsoft's.

Sun last week brought out an ODF plug-in for Office 2003 users. A preview of the Sun software, called StarOffice 8 Conversion Technology, is expected in mid-February.

IBM has also developed ODF plug-ins. ▸

Montalbano writes for the IDG News Service.

Open XML Hits Roadblock on Path to ISO Approval

MICROSOFT'S Office Open XML document format may have hit the first bumps on its road to becoming an ISO-approved standard.

Nineteen countries, including some that have adopted the alternative ISO-approved OpenDocument format standard, have submitted comments and objections about Open XML to the ISO, according to a letter released last week by the Geneva-based international standards body.

Stacy Leistner, director of communication at the American National Standards Institute, which is helping the ISO manage the Open XML approval process, declined to say how many of the 19 submissions were "contradictions" – the ISO's term for serious objections to a proposed standard.

"It's up to each country to define what constitutes a contradiction to an existing ISO standard," Leistner said. "It could be anything from changing a comma here or there, or a more technical objection."

One official said his country's letter to the ISO leans toward the latter. "While Australia did not submit a formal contradiction, a number of issues were identified during our review that we believe warrant consideration," said Alistair Tegart, a program manager at Standards Australia Ltd., a Sydney-based standards body.

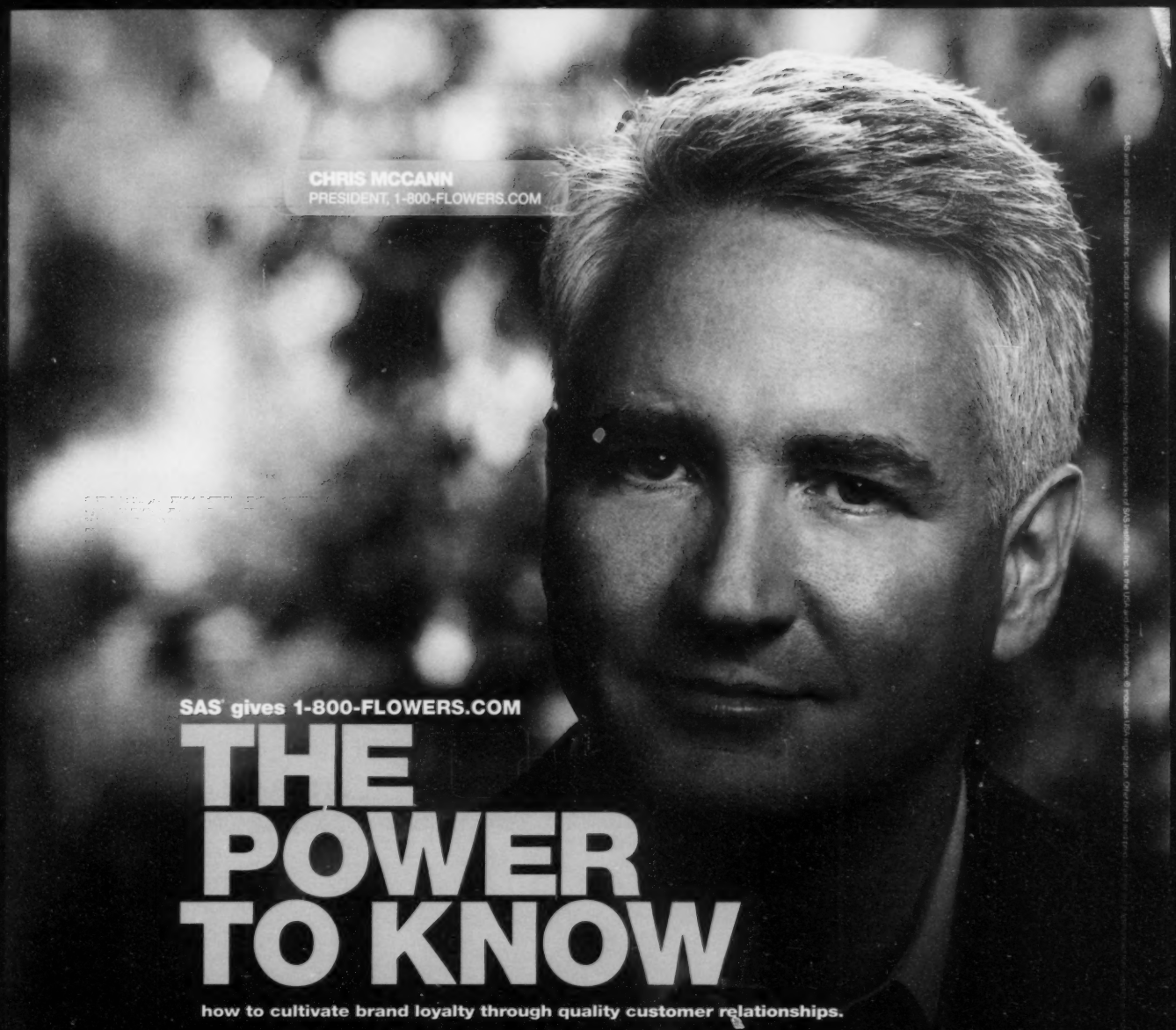
Open XML, the default file format in Office 2007, was certified in December as a standard by Ecma International, another Geneva-based standards group, after a yearlong process shepherded by Microsoft.

The nations that submitted comments and objections to Open XML include more than half of the 30 countries in the ISO's IT committee, which will determine whether to bring Open XML's 6,000-page proposal to a general vote by ISO's 157 members.

"Of the 100-plus countries involved in this process, only 19 have made submissions," said Jason Matusow, senior director for intellectual property and interoperability at Microsoft. "We expect that some are either statements of support or simple statements that the ISO member has no comments at this stage."

Comments from the countries will be made public after Feb. 28. The ISO IT committee will then decide whether to put Open XML on a so-called fast track for a general vote within five months.

– ERIC LAI



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VOLUME 1 – ISSUE 2

Windows Server 2003

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WINDOWS SERVER TAKES CHECKERED FLAG OVER LINUX

Tom Nagy for The Highly Reliable Times

THE CONTIDROM, CONTINENTAL AG's storied test track located near Hanover, Germany.

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New System Gives Global Automotive Supplier 99.9% Reliability

By MICHAEL BETTENDORF

HANOVER, Jan. 2007 – "We needed rock-solid reliability, and we weren't getting it from our legacy infrastructure," says Paul Schwefer, CIO at Continental AG, one of the world's largest automobile suppliers with over 85,000 employees worldwide. Inadequate management tools made it difficult for Schwefer's team to keep system uptimes at the high levels expected at Continental AG, so a change in platform was necessary.

Initially, a Linux solution was considered. However, after a thorough evaluation, Schwefer's team determined that Linux could not deliver the reliable, predictable environment Continental AG required. Instead, they chose Microsoft® Windows Server® 2003.

With key features of Windows Server 2003 such as group policy management, Schwefer found clear advantages over a Linux-based solution. "Windows Server provides a reliable environment with centralized administration and management," said Schwefer, who believes that superior manageability leads to high reliability. "Duplicating this level of service in a Linux-based environment would have been very difficult and more costly," he says.

The decision has proven successful: Since the implementation, Windows Server 2003 has provided 99.9% reliability in a distributed environment for Continental AG. For the full Continental AG case study, plus other case studies and independent research findings on the reliability of Windows Server versus Linux, visit microsoft.com/getthefacts

BREAKING NEWS: Reliability linked to cheerfulness in IT professionals

In a trend with global implications, IT professionals such as Continental AG CIO Paul Schwefer show obvious signs of exuberance (see above) due to high Windows Server reliability.

"Windows Server provides a reliable environment with centralized administration and management. Duplicating this level of service in a Linux-based environment would have been very difficult."

— Paul Schwefer, CIO, Continental AG

RELIABILITY NEWS & NOTES: A study

CONTINUED GROWTH: More and more

Business Objects Sets Sights On BI's Midmarket Potential

BY HEATHER HAVENSTEIN

BUSINESS OBJECTS SA is turning an eye toward the midmarket with a newly formed business unit and a new business-intelligence product line tailored for companies with annual revenue under $1 billion.

The Paris-based company, which has traditionally focused on selling its BI tools to very large companies, last week disclosed plans to also target midsize firms.

Todd Rowe, vice president and general manager of the new Business Objects midmarket business unit, noted that within his unit's targeted market, the BI business is growing about 50% faster than it is among larger companies. Also, Rowe said, the cost of sales to midmarket customers is far lower than the cost of sales to corporate users because midmarket companies buy software and services mostly through sales channels.

In the past, Business Objects has just "slapped a midmarket label" on its existing enterprise software, Rowe said. But "it doesn't really work that way," he acknowledged, adding that the company will now "be taking different elements of our enterprise products and only selecting those that the midmarket really needs to have."

The new unit includes 12 functional groups, including engineering, product management, marketing and sales operations, Rowe said.

George Neill, director of IT at Organic Valley Family of Farms in La Farge, Wis., said Business Objects' move likely means that the BI vendor will expand its partner network.

He said Organic Valley has at times had difficulty finding companies to implement and support some Business Objects BI software, like its data integration tools.

"Business Objects has a pretty good network of partners, but I think they are running into situations where they realize they need to provide a little better coordination of efforts between partners and customers," Neill said.

He noted that although Organic Valley fits Business Objects' definition of a midmarket company — its 2006 revenue was $335 million — it is using the vendor's XI enterprise query and reporting tools.

The new strategy should provide a better growth path for organizations of Organic Valley's size. "I know that they are not building this on a platform of small-business tools; they are building it on a platform of enterprise tools that I know will be able to grow with us," Neill said.

Under its plan, Business Objects will offer three editions of the new software, called Business Objects Crystal Decisions. They will range from a standard edition with basic reporting and ad hoc querying capabilities to a premium edition that includes performance management in addition to the mix of BI features.

John Hagerty, an analyst at AMR Research Inc., said BI is rapidly becoming a mainstream technology for midsize companies. He noted that although sales to such users may be small for vendors that typically cater to larger customers, the number of potential customers in the midmarket is significantly higher than it is in the corporate market.

The main impetus for the move by Business Objects, Hagerty suggested, is Microsoft Corp.'s increasing focus on the BI business. "When [Microsoft] puts its attention on a certain marketplace, they will get a large stake in it," he said. "It is important for vendors of all stripes to be able to establish a strong position in the midmarket before Microsoft comes in and tries to take it away from them."

In North America, the standard edition of Crystal Decisions costs $20,000 for five concurrent users on a single Windows or Linux server. Rowe said the midmarket software can cost up to $175,000, which is 30% to 50% less than the price of Business Objects' enterprise software.

NEW PRODUCT

Crystal Decisions

- Standard Edition, available now, includes reporting, ad hoc querying and analysis tools, as well as dashboards.
- Professional Edition, due in the second quarter, will include everything from the Standard Edition plus data integration functionality.
- Premium Edition, to be launched in the fourth quarter, will add performance management capabilities to everything offered in the other editions.

Continued from page 1

Huckabee

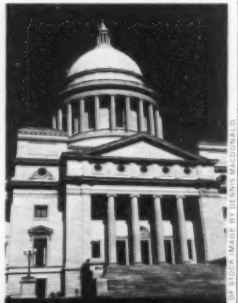
state agencies should write over the information "one to three times" and then destroy the drives containing the data.

Bailey said, though, that her office doesn't weigh in on whether doing so is appropriate. "Our customers make the decision," she said. "DIS does not make the decision about whether data is sensitive or not. We back up information for our customers, but we do not go in and analyze the data."

Drives were removed from systems in the state capitol building, the governor's mansion, a state office in Washington, and an office and airport hangar used by the Arkansas State Police, Bailey said. The state spent $13,000 from its emergency fund to destroy the drives, she noted.

Huckabee filed papers on Jan. 29 saying that he was forming an exploratory committee in advance of a possible run for the GOP's 2008 presidential nomination.

Gabe Holmstrom, a spokesman for the Arkansas attorney general's office, said the attorney general is reviewing the destruction of the disk drives to determine whether any state laws were broken.



Drives from systems in the Arkansas capitol were among those destroyed.

Meanwhile, Jim Parsons, a resident of Bella Vista, Ark., confirmed that he had filed a complaint against Huckabee with the Arkansas Ethics Commission for allegedly destroying state property.

Parsons also tried to file a criminal complaint with Larry Jegley, the prosecuting attorney of Pulaski County in Arkansas. But Jegley's office declined to accept the complaint because it didn't consider Parsons to be a victim of a crime, said First Deputy Prosecutor John Johnson. He added that if the destruction of the drives was in fact a crime, the real victims would be the state agencies that owned the affected computers.

Information in a PowerPoint presentation posted on the attorney general's Web site says that tampering with public records is a Class D felony, which in Arkansas is punishable by up to six years in prison. The problem, Johnson said, is determining whether the documents that were removed from the drives qualify as public records.

> **DIS does not make the decision about whether data is sensitive or not. We back up information for our customers, but we do not go in and analyze the data.**
>
> **CLAIRE BAILEY**, ARKANSAS DEPARTMENT OF INFORMATION SYSTEMS

Alice Stewart, a spokeswoman for Huckabee, said he wanted to delete data that wouldn't be needed by the new governor, Democrat Mike Beebe. "Gov. Huckabee really wanted to go out of his way to ease the transition," Stewart said. "Part of that included us shutting down our own computer systems in enough time to remove the hard drives and get them destroyed, and to return the computers to Beebe's office for them to just install [new] hard drives."

Huckabee said that he was only trying to protect the privacy of data stored on the drives. "This is not about destroying state property, this is about honoring our obligation to protect the privacy of the thousands of people who had personal data on those hard drives," Huckabee said in an e-mail sent to *Computerworld*.

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GLOBAL DISPATCHES

An International IT News Digest

Gorbachev Asks for Leniency in Piracy Case

MOSCOW

MICROSOFT CORP. is sidestepping an appeal from Mikhail Gorbachev, the last leader of the former Soviet Union, to intervene in a piracy case involving a school principal.

In a letter sent to Microsoft Chairman Bill Gates last week, Gorbachev asked for help in halting the trial of Alexander Ponosov, 40, who could face up to five years in prison.

Ponosov was charged in November with using more than $10,000 (U.S.) in pirated Microsoft software at his school in the village of Vereschagino in western Russia. The principal claims that he bought computers with the unlicensed software preinstalled.

Gorbachev said that although Russian law allows for the prosecution of those who unknowingly use pirated software, the case against Ponosov is unwarranted.

Microsoft did not request that the charges be filed — the decision was made by Russian prosecutors, said Kim Gagne, the company's corporate affairs director for central and eastern Europe.

Olga Dergunova, who heads Microsoft's Russian operations, added that the company does not plan to pursue a civil case against Ponosov. "We don't see this as a serious violation," she said.

■ JEREMY KIRK, IDG NEWS SERVICE

German Police Can't Spy on PCs, Court Says

KARLSRUHE, GERMANY

THE GERMAN high court here last week handed down a decision banning police from installing spyware on the computers of suspected criminals without their knowledge.

The decision is a blow to the plans of German Interior Minister Wolfgang Schäuble to give the Federal Criminal Police Office greater power to monitor people suspected of terrorism and other crimes.

The government was appealing a November ruling by a German judge that had also barred the practice.

In its decision, the high court concluded that searching computers is similar to searching homes, a practice requiring German police to obtain a search warrant and inform suspected offenders of their plans.

The judges also noted that the police are prohibited from hacking computers under German phone-tapping laws.

At Schäuble's request, the German parliament last year appropriated €132 million ($172 million U.S.) for a program for strengthening domestic security, which included plans to access and monitor PCs of suspected criminals.

The program also calls for greater use of video cameras in public places, biometric systems and other new security technologies.

■ JOHN BLAU, IDG NEWS SERVICE

French to Give Students Open-Source Software

PARIS

THE GREATER Paris Regional Council late last month announced plans to distribute 175,000 USB memory sticks loaded with open-source software to the city's high school students at the start of the next school year.

The council, which maintains Paris high school buildings and the 120,000 computers housed in them, plans to spend €2.6 million ($3.4 million U.S.) this year on the USB sticks.

The sticks will provide students with the ability to access e-mail and other documents on computers at multiple locations, said Jean-Baptiste Roger, a spokesman for the council.

The exact mix of open-source software carried in the USB stick will be defined by the company that wins the contract to supply them, he said.

Roger said the sticks will likely contain the Firefox 2 Web browser, the Thunderbird e-mail client, an office productivity suite such as OpenOffice.org 2 and software for instant messaging.

■ PETER SAYER, IDG NEWS SERVICE

GLOBAL FACT

$6.8B

Projected size of the market for online games in the Asia-Pacific region in 2010, up from $3.2 billion in 2005.

SOURCE: IN-STAT

Indian IT Workers Flock to Outsourcers

BANGALORE, INDIA

CIOs in India are losing staffers to Indian outsourcers, even as there is greater pressure on IT organizations in user companies to deliver benefits, a Gartner Inc. researcher said.

India's top IT employees prefer working for large services providers, which continue to hire at a strong clip, said Partha Iyengar, a research vice president at Gartner, in a conference call.

Indian user organizations are finding it very difficult to attract and retain technical staffers, particularly in middle management, he said.

The problem for user organizations may only get worse, Iyengar noted, as fast-growing outsourcing companies start hiring business line managers to build vertical industry expertise.

As large Indian outsourcers grow their revenue by 30% to 40% each year, they will hire business managers from the banking, manufacturing and retail industries, acquiring business knowledge that can be integrated into their services offerings, he added.

Such staff movement will make it more difficult for CIOs to complete projects, he said.

■ JOHN RIBEIRO, IDG NEWS SERVICE

EMC to Buy Indian Software Company

HYDERABAD, INDIA

EMC CORP. last week agreed to acquire Valyd Software Ltd., a Hyderabad-based maker of security software, for an undisclosed sum.

EMC said that the privately held operation will be added to its RSA division, which was set up last year to manage products gained from its acquisitions of RSA Security Inc. and Network Intelligence Corp.

Manoj Chugh, president of EMC India, said that the company plans to unveil two Valyd products immediately after the close of the deal, which is expected by the end of this quarter.

The new RSA Database Security Manager will provide security for database management systems of multiple vendors, Chugh said. The second product, RSA File Security Manager, will secure data at the file and folder level, he noted.

Valyd Software, formed in 1998, employs about 50 staffers in its Hyderabad office. Chugh said the workforce there will be increased to 100 by the end of this year.

Once the acquisition is complete, the RSA Hyderabad operation will be responsible for the further development and enhancement of the new security products, he added.

■ JOHN RIBEIRO, IDG NEWS SERVICE

Compiled by Mike Bucken.

Briefly Noted

Mincom Ltd. has acquired Perth, Australia-based software maker Karjeni Pty. for an undisclosed sum. Brisbane, Australia-based Mincom said the deal is part of its effort to expand through acquisitions. In mid-January, Mincom was acquired by private equity firm Francisco Partners Management LLC in Menlo Park, Calif., for $315 million Australian ($245 million U.S.).

■ DARREN PAULI, COMPUTERWORLD AUSTRALIA

NXP Semiconductors, the former chip division of Philips Electronics NV, and Advanced Semiconductor Engineering Inc. have agreed to form a joint chip packaging and testing venture in Suzhou, China. Kaohsiung, Taiwan-based ASE will hold a 60% stake in the venture, and Eindhoven, Netherlands-based NXP will hold the remaining 40%. The deal requires approval from Chinese and Taiwanese regulatory agencies.

■ DAN NYSTEDT, IDG NEWS SERVICE

Sichuan Sinomanic Technology LLC, a Chengdu, China-based PC maker, last week unveiled a low-cost computer designed for users in rural China. The Tian En GX-2, priced at 998 renminbi ($129 U.S.), is based on a 400-MHz processor from Raza Microelectronics Inc. and runs either Linux or FutureAlpha, a Chinese-developed operating system.

■ SUMNER LEMON, IDG NEWS SERVICE

Melbourne, Australia-based Capability Management Ltd. has launched a portal aimed at helping Australian businesspeople tackle IT governance and project management issues. Jed Simms, executive chairman of Capability Management, said the site, Projectsponsor.com, was launched to help corporations measure the value of IT projects.

■ RODNEY GEDDA, COMPUTERWORLD AUSTRALIA

Samsung Electronics Co. has reached an agreement to pay $90 million to settle a dynamic RAM price-fixing suit filed by a group of 41 U.S. state governments. Samsung also agreed to assist in resolving price-fixing charges against other defendants named in the suit, according to the Office of the New York State Attorney General.

■ DAN NYSTEDT, IDG NEWS SERVICE

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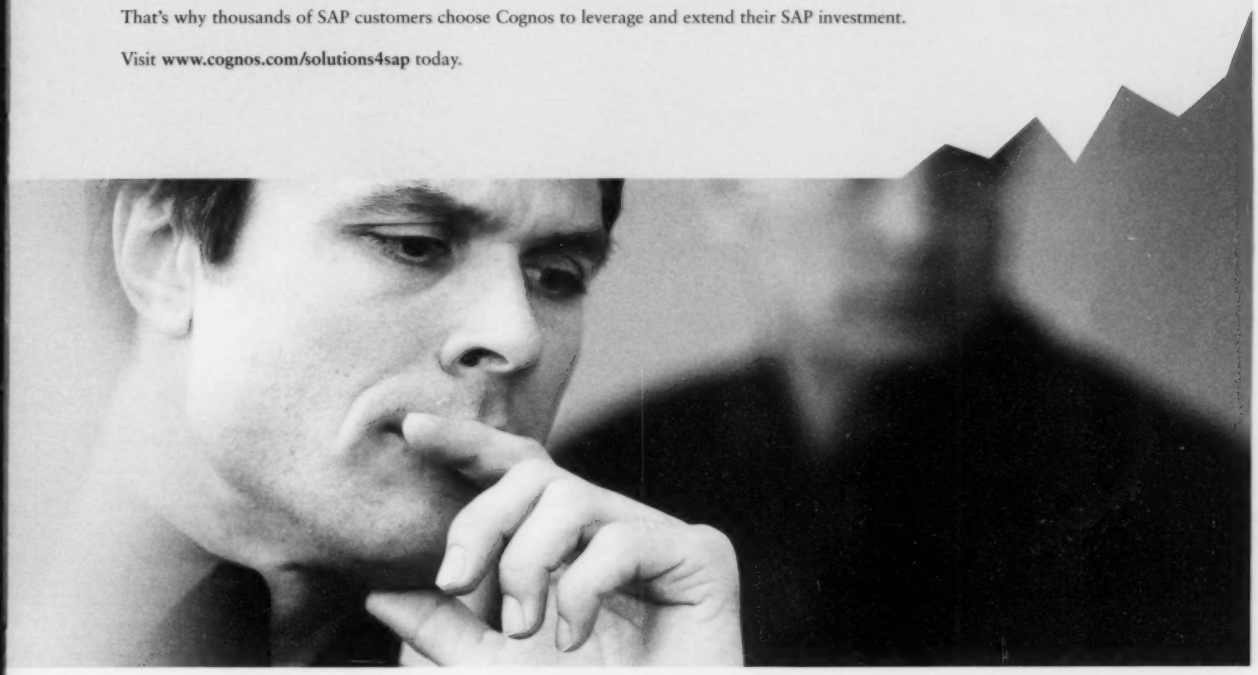

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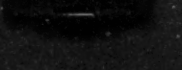

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DON TENNANT

Dumping Kevin

IN DECEMBER 2000, I asked Michael Dell to tell me the dumbest decision he ever made at his company. "We once created our own version of Unix back in the late 1980s," he responded. "That was certainly not a good idea."

If I asked him the same question today, I have no idea what he'd say on the record. But off the record, I have a hunch he'd say it was allowing Kevin Rollins to take over as CEO in July 2004.

DON TENNANT is editor in chief of *Computerworld*. Contact him at **don_tennant@computerworld.com.**

It was, to be sure, a phenomenally stupid move, although none of us seemed to realize it at the time. Rollins was still basking in a honeymoon glow in February 2005, when Hewlett-Packard began searching for a CEO to replace Carly Fiorina. "The person that they're looking for is Kevin Rollins," IDC analyst Roger Kay gushed at the time. In a way, that's exactly what HP got: Kevin Rollins, only in the person of Mark Hurd.

Just as controversy and legal skirmishes have engulfed HP under Hurd, Dell under Rollins has swirled down the smelly drain of investigations and lawsuits. And just as customer support has tanked under Hurd, Dell's once-stellar customer-service rating has plunged under Rollins. That HP has overtaken Dell as the world's No. 1 PC maker suggests that Rollins had gotten bogged down in the muck of failure even more inextricably than Hurd has.

Clearly, nowhere is Rollins' failure more acute or more egregious than in the area of customer service and support. I've long lost track of how many users, readers, friends, acquaintances and relatives have shared their Dell support horror stories with me. A reader comment in response to our Jan. 31 story about Rollins "resigning" and Michael Dell returning to the CEO helm echoed an all-too-familiar refrain:

"The first thing Michael Dell needs to do is get Dell Customer Service back on track," the reader wrote. "Contacting Dell Customer Service was excruciating, I'd rather have my teeth drilled. Between the incompetence and 'don't care' attitude, I've given up on Dell. And from Dell's sales drop, it appears so have a lot of other people."

Indeed, it appears so. That's why a Feb. 2 memo written by Michael Dell to all of his employees worldwide acknowledged that what in Dellspeak is called the "customer experience," or "CE," is broken.

The memo, which was leaked to the media and confirmed as authentic by the company, makes for some fascinating reading. "We'll restore loyalty and continue CE improvement . . . [and] we'll fix CE," Dell proclaimed. And he set a realistic tone with very little sugarcoating. "We have a tough couple of quarters ahead," he wrote. "We didn't get here overnight and we won't fix things overnight either."

To be sure, not everything was rainbows and roses in the years leading up to Rollins' assumption of the CEO post. The day before I spoke with Dell in December 2000, his company's share price had dropped to a 52-week low of $17.44, after having hit a 52-week high of nearly $60 just nine months earlier. But from a user perspective, Dell's decline in the two and a half years since Rollins took over has been far more precipitous.

In that 2000 interview, I also asked Dell what the best decision he ever made was. "Dropping out of college and starting the company," he said. "That was a good one."

If I asked him the same question today, I wouldn't be surprised if he had the same response.

If I ask him a year from now, he might well say the same thing yet again. But I have a hunch he'll be thinking, "Dumping Kevin."

Don Tennant

MICHAEL GARTENBERG

The Rise of Consumer IT

INFORMATION technology was once the exclusive realm of the IT professional. Users were concerned not with technology issues but with technology results. If I had to pinpoint when that changed, I'd say it was probably with the launch of Windows 95. The hype that surrounded Microsoft's marketing blitz gave consumers their first real exposure to the world of technology. Among those waiting in line all night to buy a copy were people who didn't even own a computer. If you can sell an operating system to someone without a CPU, you have reached the ultimate in marketing, as far as I'm concerned.

MICHAEL GARTENBERG is vice president and research director for the Personal Technology & Access and Custom Research groups at JupiterResearch in New York. Contact him at **mgartenberg2@optonline.net.** His weblog and RSS feed are at **http://weblogs.jupiterresearch.com/analysts/gartenberg.**

Today, consumers have taken on many of the same roles as IT professionals — in fact, they are often working on more complicated tasks, such as streaming live video feeds from their homes to their phones. Dad is the CIO, Mom runs the help desk, and the kids are doing technical support and stringing Cat 5 wire around the house. If users are feeling more comfortable with IT, it's because they've been thrust into these roles at home, where they are keeping technology running without the benefit of a dedicated IT department. They're also more interested in technology issues — just check how many technology sites users visit from work.

Now granted, there's a big difference in the things consumers are doing and the challenges that IT managers face, but consumer familiarity with technical tasks means that more users are technoliterate than ever before. And that means they're going to want to express their opinions

about how things should be done.

But users' priorities are different from IT's. For example, form factor is a major consideration for consumers. It was not that long ago that all PCs looked the same. PCs were PCs. If you wanted to market a server, you turned the PC on its side; if you needed a workstation, you painted it blue; and if you wanted a mobile computer, you just glued a handle on the top. Today, PCs are as much about fashion and style as they are about feeds and speeds.

This, of course, has ramifications for IT departments. IT is getting more requests for new laptops based on form and style, and not just from top executives. And increasingly, users are taking matters into their own hands and making technology purchases on their own. Whether it's buying a cool new laptop to replace the organizational behemoth they were issued, installing a new operating system like Windows Vista, or purchasing a smart phone and asking IT to make it work with corporate e-mail, users are demanding more of a voice in IT decisions.

Yes, consumer technology is often unsuitable for business use, but IT organizations must begin to pay attention to what consumers want. The line that once existed between home and work is eroding, and people want to use personal devices to bridge that gap.

There is no one answer to how IT organizations will deal with this new reality. Different companies will exercise different degrees of control based on their comfort with the risks involved and the amount of individual device adoption they can absorb. But IT people need to not only recognize the changes in the landscape, but also remember whom they work for.

BRUCE A. STEWART

Keeping Tomorrow's Staff

FOR AS LONG as I can remember, we in IT have had a hard time getting credit for all the value we create for the organizations we work for. Not long after implementation day, everyone in the business forgets how things used to be — and at that point, the system simply becomes yet another cost in the IT budget.

Good news! There's an opportunity right now that will produce real business value — and you have enough time to work on it methodically. I can't promise that anyone will recognize this value, but your organization's continued success will be one sign that you've made a difference.

Here's a hint: Have you hired any staffers in their 20s recently? Have you noticed that they're just a little bit different from previous generations? My clients are finding that generally, they're far harder to hold on to.

BRUCE A. STEWART is CEO of Vancouver, British Columbia-based Accendor Research Inc., an advisory services firm focused on management issues in the technology-enabled enterprise. He can be reached at **bruce.stewart@accendor.com**.

The source of that difference is that this newly graduating generation is the first one to have experienced "growing up digital," as Don Tapscott put it in his book of the same name. For most of their lives, they've had not just computers, but the Internet as well. A few years ago, they were the teenagers carrying on four MSN Messenger conversations while listening to their music, surfing Web sites and, oh, yes, somewhere in there supposedly doing some homework. It's how they still work.

They're not huge fans of e-mail. They use it, but they prefer instant messaging, blogs or comments attached to information on a social Web site. They reach out to their friends electronically, with text messages on cell phones and IM on computers, but they almost never make an actual phone call. They work in groups on an ad hoc basis.

Every Web site they use regularly was learned intuitively — no one goes to a course or gets on-the-job training in how to use Google or YouTube or Blogspot or Wikipedia. As far as this generation is concerned, those are models for how computers work. If they do get stuck, a quick message to a friend — whoever is online — gets them an answer. They expect that kind of collaborative, shared experience. And then they come to work for your organization.

If yours is like most companies, there is a flood of e-mail every day. Users do basic things in some corporate applications with complex user interfaces — one opens up in a 3270 window, another has client code, and still another opens in a Web browser, but with an interface that's utilitarian and sparse. Nowhere is there a place to make comments, help one another or learn from those who have gone before. As for IM, it's disabled as a matter of policy.

For the current crop of twentysomethings, this is a disheartening environment, with narrow jobs. Most leave within six to nine months.

So, what can we IT people do? We can start to make our environments more collaborative. We can set up a company wiki, IM in the workplace and blogs on the intranet. We can clean up application interfaces as maintenance occurs. It'll be a great investment that pays off bigger each year.

You see, there are fewer of this generation than there are of the retiring baby boomers. The company that can hold on to its new hires will have a real competitive advantage. The fact that these tools let them leverage one another in order to do more in less time is a further boost. Your pension will thank you for this hidden value.

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READERS' LETTERS

Goodbye, PCs; Hello, Linux

BY USING customized Linux pxe-bootable images and any pxe-bootable machine, including thin clients, and adding a multihead video card, you can make PCs and the fat operating system history ["Why Vista Is IT's Big Opportunity," 2007 Forecast, Jan. 1].

My company has been using a combo of VMware-based Windows XP guests and blade PCs for two years now, and we haven't looked back. Migration is a snap: Just give access to another guest and have the user use a hot-key sequence (preprogrammed in Linux) to connect to the new instance.

Want to test a new operating system? Go ahead, as long as it supports RDP (using rdesktop in that customized Linux image makes a *lot* possible). Need to have multihead? Done – Linux's XFree supports *many* multihead cards. Need to work from anywhere? Done – the network really *does* become the machine (or at least the mechanism to provide full service to the client).

Windows Vista is just XP with pretty graphics – it was only interesting when Microsoft claimed that WinFS was coming, but even that doesn't cause me to look at it as worthwhile. Linux has become a strong focus, and for us, at least, Windows has become nothing more than a service/gateway to the applications.

Adam Bil
CTO, Rock Ridge Advisors LLC, Greenwich, Conn.

Challenging Spam Adds to the Problem

THE AUTHOR of "How I Nuked Mobile Spam" [*Computerworld.com*, Dec. 26] has solved his e-mail problem at the expense of the hundreds of thousands of real live humans whose domain names have been spoofed by spammers. Why do I say this? Because they get back all those challenge response e-mails. The author has become a big part of the spam problem.

Jeff Lasman
CEO, NoBaloney Internet Services, San Bernardino, Calif.

Unimpressed by AT&T 'Concessions'

ADVOCATES ARE praising AT&T for a pledge to honor Net neutrality for *two years* ["Net Neutrality Advocates Cheer AT&T Concessions," *Computerworld.com*, Dec. 31]? Come on. AT&T can plan for *decades*. Two years is only 24 months – heck, that fits in the range of short-term planning for such a large corporation. I'm not saying that AT&T plans to trash neutrality after two years, but if it wants to, 24 months isn't even a long planning period.

Without long-term legal constraints, anything promised by any corporation is as evanescent as morning frost, and if there's a whiff of profit to be garnered by breaking that promise, it's history.

Corporations today are totally and unremittingly driven by their market share and stock price; anyone who puts faith in "voluntary concessions" is dreaming.

David M. Ihnat
President, DMINET Consulting Inc., Chicago, dihnat@dminet.com

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 1 Speen Street, Framingham, Mass. 01701. Fax: (508) 879-4843. E-mail: letters@computerworld.com. Include an address and phone number for immediate verification.

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STRATEGIES & TACTICS

Inside 02.12.07

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Opinion: Bart Perkins **PAGE 38**

spam
phishing
viruses
botnets
porn
crushing complexity

Is it time to start anew? Is it possible?

BY GARY ANTHES

ADVANCES in IT over the decades have come mostly in small increments — Release 2.3 yields to 2.4, transistors shrink a few more nanometers, Ethernet gets another speed boost, bugs are fixed, and algorithms get tweaked. That kind of evolutionary approach has served users well, boosting speeds, capacities and application capabilities by many orders of magnitude.

But such incremental improvements are no longer sufficient to keep the Internet viable, according to a growing number of researchers. In fact, they say, the Internet is at the tipping point of overwhelming abuse and complexity.

The most sanguine of observers say that even if the Internet is able to avoid some kind of digital Armageddon brought on by spammers, hackers, phishers and cyberterrorists, it nevertheless will drown in a flood of mobile gadgets, interactive multimedia applications and Internet-enabled devices, including phones, cars, home appliances and radio frequency identification tags.

Indeed, researchers say, it is time to rethink all the old notions from the late 1960s and 1970s when the Internet was in its infancy. While few think it is possible to literally start over, there are a number of so-called clean-slate research programs that start with the premise that anything is possible and no option is too far out to consider.

Nick McKeown, a computer scientist at Stanford University, heads up one such program. He says the Internet is "broken" in at least two places — security and mobility.

"Ten years ago, we were saying the Internet would change the world," he says. "In a decade or two, we'd be doing air traffic control and remote surgery over the Internet. But if air traffic control were on the Internet today, I wouldn't fly. Same with telesurgery."

And it isn't just a problem of security and reliability, McKeown says; the Internet is getting crushed by complexity. He points out that the original Internet design was based on the idea that users were immobile and connected to the Net by wires.

"But if the user is moving around, you end up with a whole lot of hooks and kludges to keep track of the user," he says. "There have been various proposals for a mobile IP, and they are all awful. They barely hold together now, but all the routing mechanisms will just break when there are many more mobile devices."

McKeown and his colleagues have developed a prototype network called

Continued on page 28

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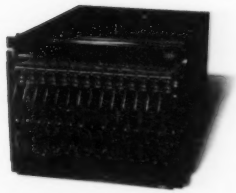

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making it happen

If history is any guide, we aren't going to wake up one day and find ourselves using a clean-slate Internet. Robert Kahn was a key architect of the Arpanet, the precursor of the Internet, at the Defense Advanced Research Projects Agency in the 1970s and early 1980s. He presided over the conversion of the Arpanet from its original Network Control Protocol to TCP/IP in 1983.

"There were hundreds of computers on the Arpanet at the time," Kahn recalls. "They had a year or two of warning, but a week before the transition actually occurred, people were still asking me, 'Is it really going to happen?' When we said yes, they said, 'Well, you know it's going to take us a while to get ready.' So we had to run the old and new protocols in parallel for close to six months."

Most of the facilities in question were DARPA-funded and so were at least partly under Kahn's control. "It's a much more complex problem when there is no central party controlling everything," he says. "Today, no one party could effectively orchestrate that."

– GARY ANTHES

Continued from page 25

Ethane, which centralizes security rather than putting it all around the network in firewalls, virus scanners and the like. With Ethane, all communications are turned off by default. A host joining the network must get explicit permission from a centralized server before it can connect to anything except that server. And the server won't grant permission unless it is able to determine the location and identity of the requestor.

Funding the Slate

The National Science Foundation has funded Internet research for many years, but most of its projects have been of the incremental improvement variety, and most have not involved proving out new ideas on a large scale, with millions of users, says Deborah Crawford, deputy assistant director for computer and information science and engineering at the NSF.

But now the NSF is gearing up to build a $300 million to $400 million clean slate on which researchers can chalk up and test radical new ideas. The Global Environment for Networking Innovation, or GENI, will be a giant test laboratory stretching across the U.S., complete with wired and wireless computers, routers, switches, management software and subnets of wireless, cellular, sensor and radio devices. It will include a fiber-optic backbone and tail circuits to some 200 universities.

When it's complete, sometime after 2010, users will contract for virtual "slices" of the GENI infrastructure, which they'll be able to use to test ideas "at scale," simultaneously and independently, Crawford says. Each researcher will see his slice as his own private test network.

GENI will be built without assuming anything, says Allison Mankin, a co-manager of GENI at the NSF. The hardware and software will have the flexibility to accommodate the trial of just about any networking idea, not just those based on packet switching, TCP/IP, routers and other accoutrements of today's Internet.

Mankin says the kinds of incremental progress that have typically come from earlier NSF projects, while worthwhile, are no longer sufficient. "For example," she says, "people have actually proven that it's impossible to prevent denial-of-service attacks with the current Internet. If you want to build a network without denial of service, you have to start over."

But Mankin acknowledges that it's unlikely the old slate will be wiped clean completely, with the global Internet scrapped for something entirely different. "Forklifts don't exist that are big enough for that," she notes.

GENI will provide a clean slate for design and large-scale testing, but not necessarily a clean slate for deployment. Says Mankin, "You get a wonderful idea out of the [GENI] facility, and then you say, 'Well, now that I understand how it works, I see how I could put it into the existing Internet because I just have to tweak it, and it'll fit in.' "

In parallel with the design and building of GENI, the NSF is funding a number of research efforts under a program called FIND, for Future Internet Network Design. They are the kinds of efforts that may ride on GENI when it's available, but many are under way now.

One FIND project focuses on how to build manageability into routing systems from the beginning, instead of adding it later as is typically the case. Another explores ultrafast optical technologies, based on the belief that electronic switching systems will be unable to keep pace with mushrooming demand. Still another is looking at "location-aware networks," in which the IP address is supplemented by geographic coordinates. And then there's a FIND project that is considering the option of allowing users to select the paths their packets take through the network, letting them make trade-offs among factors such as cost, speed, reliability and security.

Not all the projects focus on technology. One is studying the interactions and economic and social motivations of users, hackers, service providers and regulators, with the goals of improving service, security and user utility.

Mankin says the Ethane initiative is part of a family of FIND projects at Stanford that could lead to "an Internet where denial of service can't happen." But, she adds, it's too early to tell whether the school's ideas represent a "leap."

Spam? How Quaint

Indeed, some of McKeown's clean-slate projects have a 15-year planning horizon. "Changes will be largely in terms of security," he says of the Internet 15 years out. "Terms like *virus*, *worm*, *phishing* and *spam* are just consequences of the Internet architecture; they are not things that will inherently happen. We may have new terms for new ways that people will try to trick us, but those old terms will be quaint terms associated with the previous Internet."

Not everyone agrees with that assessment. "The argument often is that you need a clean-slate Internet because the current Internet has a lot of problems — a lack of security, viruses, spam, that kind of thing," says Internet pioneer Robert Kahn, a co-inventor of TCP/IP. "But most of those are not issues that a brand-new structure is likely to solve all by itself."

Kahn, who's now CEO of the Corporation for National Research Initiatives in Reston, Va., points out, for example, that what is deemed to be spam or even pornography can vary depending on who is viewing it, and he notes that the application of technological solutions for such problems introduces other social issues, such as concerns about privacy and censorship. "The reason we don't have security in the current Internet isn't solely a technical matter," he says.

And it's worth noting again that not all of the NSF's FIND and GENI projects deal solely with technology. "We are suggesting that a lot of the security projects should have a social collaborator," Mankin says. "You are not going to change society, but you can help with some changes to technology."

Kahn says clean-slate proposals may involve changes to the networks themselves, to computers, to operating systems or to major classes of applications. "You don't do these things lightly," he says. "The implications are pretty profound across the board."

Given the difficulties, does it make sense to seek a clean slate? "Absolutely," Kahn says. "If there are really good ideas — that's the heart of it."

GENI
Global Environment for Networking Innovation

"Not only is the Internet having a midlife crisis; so is the Internet research community," says clean-slate Internet researcher Nick McKeown, of Stanford University. "Most of the people involved in the original Internet are near the ends of their careers or have retired."

He says younger researchers were frustrated by a prevailing view that any change to the Internet had to be "backward-compatible" so as not to disrupt users, a requirement that dictated modest, incremental change.

"When the current cohort [of researchers] reached midlife, got tenure and so on, we realized that it's time to try and break from the trap of incrementalism," says McKeown, 43. "We said, 'You know, we are part of the problem now, but we should be part of the solution.' Hence, GENI was born."

– GARY ANTHES

FIND
Future Internet Network Design

Design for Manageability in the Next Generation Internet: University of Wisconsin

Designing Secure Networks From the Ground Up: Stanford University, University of Wisconsin

Enabling Defense and Deterrence Through Private Attribution: University of California, University of Washington

An Experimental Protocol Stack for Cognitive Radio Networks: Rutgers University, University of Kansas, Carnegie Mellon University, Blossom Inc.

A Framework for Manageability in Future Routing Systems: University of Pennsylvania, University of Massachusetts, Amherst, University of Minnesota

Future Optical Network Architectures: MIT

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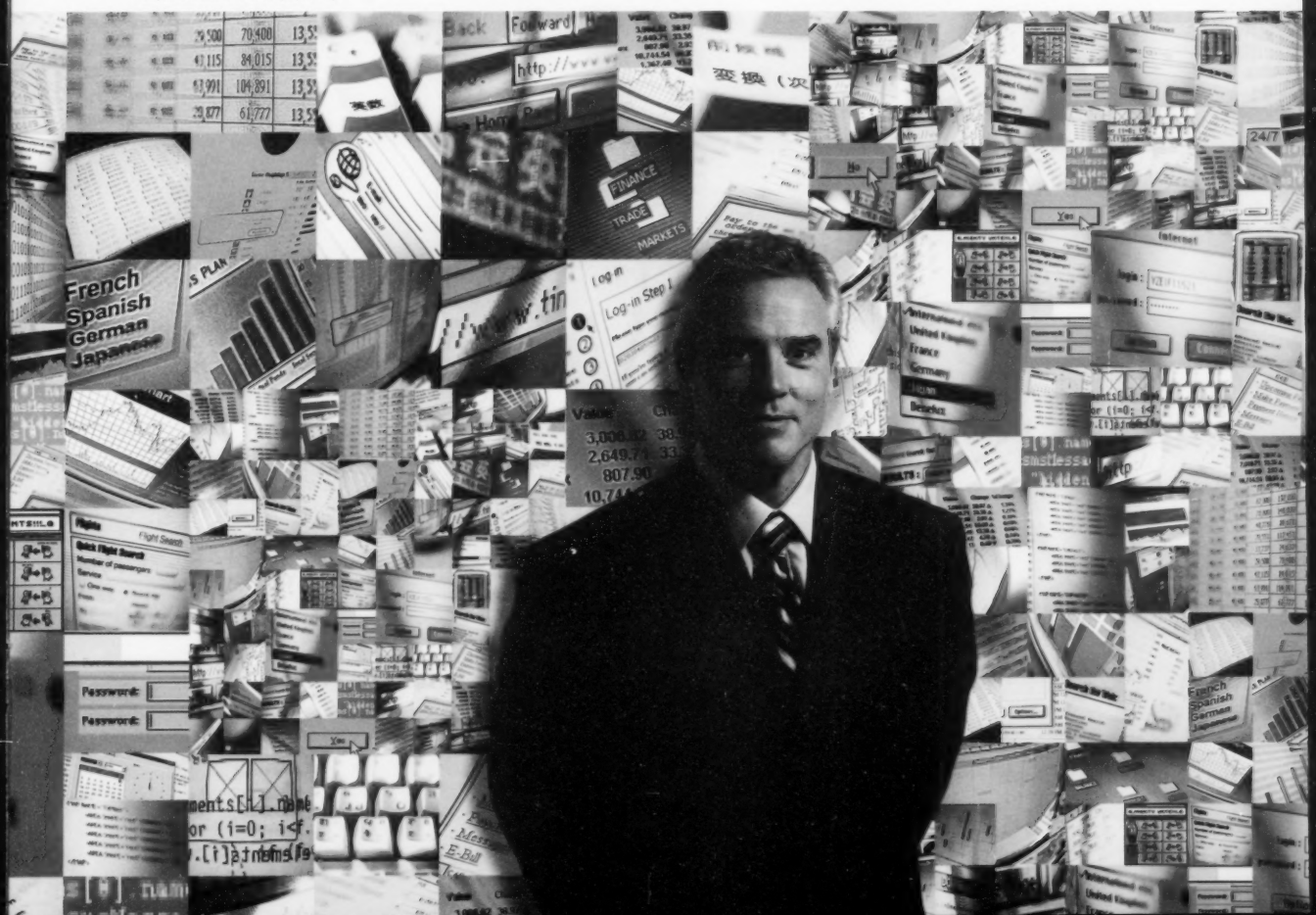


MELINDA BECK

BI & Search: A MARRIAGE OF CONVENIENCE

Search technology can make business intelligence — both text and data — more accessible.

BY DREW ROBB

OFTEN, a company's most valuable information is squirreled away in various departmental silos, and it takes an IT or statistics guru to coax it out. But what if workers could get that information — whether it's in the form of data tables or text — using an interface that's as easy to use as a Google search box?

That's the thinking behind the marriage of business intelligence (BI) software and enterprise search technology. It's an especially powerful concept for a decentralized organization such as the National Education Association (NEA), a teachers union with 3.2 million members and 14,000 state and local affiliates. "We wanted software that allowed people, particularly at the state-level organization, to create and edit their own reports," says Bill Thompson, the NEA's director of financial and membership services.

The organization is setting up Fast Radar, a BI/search product from Fast Search and Transfer SA, to give users access to financial, legal, research and membership information that is contained in four separate data silos. A small pilot is being conducted with a few affiliates, and broad deployment is scheduled to start in May. Initially, users will gain point-and-click access to information in the four databases. Later, they will be able to conduct text searches of the BI and text data.

Anticipation is running high. "Whenever you bring on a piece of software and people see its potential, they don't want to wait," says Thompson. "There is a growing number of people who say they want it now."

While other aspects of IT have become more user-friendly, the creation of BI reports has remained an arcane specialty. In the past year, however, the technology that can change this finally became available. In April, Google Inc. released OneBox for Enterprise, which enabled Google's search appliances to search structured data contained in databases and data warehouses in addition to text.

"The introduction of the Google OneBox API was a watershed event," says Gartner Inc. analyst Whit Andrews. "We have seen the BI vendors approach search with real eagerness, and it is a rare BI vendor today who can't tell you about an integration [of its BI software] to an enterprise search product."

Cognos Inc., Information Builders Inc., Oracle Corp. and SAS Institute Inc. are among the BI vendors that have created links between their BI products and OneBox. In December, IBM and Yahoo Inc. released a free enterprise search application called IBM OmniFind Yahoo Edition, and Cognos

Four Ways TO DO IT

IDC analyst **SUE FELDMAN** says there are four approaches to merging business intelligence and search:

1 **Point a search engine at the databases for keyword searches. This may be good for open-text fields in a CRM application, but it won't tell you much about the numeric fields. The number 400 in a database field might be a financial figure, a suite number or an employee badge number. It requires additional context to be useful.**

2 **Merge text into a database. This can be useful for very specific applications with strictly defined parameters, but not for general text or open-ended queries.**

3 **Split a search into separate questions for a text search and a SQL query – and then combine the results.**

4 **Create an index that sits between the user and the underlying structured and unstructured data. The search can then be executed against this intermediate layer.**

Feldman says the fourth option is the best approach. An advantage that it has over the third option is that the meanings of the words are defined ahead of time, rather than being defined on the fly when the user executes a search.

– DREW ROBB

announced a link between its Cognos 8 Go Search engine and OmniFind. Last month, Information Builders announced WebFocus Magnify, a search navigation tool that indexes structured data and provides BI reports within the search results.

Furthermore, Business Objects SA has a tool set coming out in the first half of 2007 that includes the ability to do text searches of its BI data. This month, Hyperion Solutions Corp. will unveil Hyperion System 9 Smart Search, which links to Google's OneBox.

John Rome, Arizona State University's director of data administration and data warehousing, is already using Google's search appliance and Hyperion BI software. He also plans to deploy Smart Search once it's available.

"When you put in a request, it brings you back live results or a list of reports or queries you can run that will get you the information you need," he says. "If I want to find out about student retention rates or graduation rates, I can just put that in the search engine and get back the results, instead of building a query or duplicating what someone else has done."

CARL TURZA, CIO at Sigma-Aldrich, is giving customers easier access to structured and unstructured product data.

Joining BI and search technology provides two big benefits. One is the ability to combine the information contained in structured and unstructured data sources. That gives users a broader understanding of an issue. IDC analyst Sue Feldman says that creating a single point of access to all corporate information is one of the top three information management problems that companies are trying to solve.

"This problem has only become greater in the last couple years as enterprises realize their decision-making systems have often been ignoring the content side," says Feldman. "Some of the most important parts of their business are in the unstructured or semistructured data — customer e-mails, text fields in CRM systems — which can help them know about impending problems and avoid product recalls."

Carl Turza, CIO at Sigma-Aldrich Corp., a $1.7 billion pharmaceutical and chemical company, is using Endeca Technologies Inc.'s search software to give customers Web-based access to structured and unstructured data about the St. Louis-based company's products.

Turza explains that some customers may need to know the certificate of origin and certificate of authenticity for pharmaceutical products, while others may also need information about drug or chemical safety issues. "If they need to initiate a separate search for both, I am wasting their time," he says. "Instead, I can expose that data as a little icon or a little note they can click on if they want to open it, but I don't have to increase their cognitive load."

With this Endeca technology in place on Sigma-Aldrich's Web site, Turza plans to deploy it internally by pointing the search engine at the data warehouse and other enterprise data stores. "We will see a proliferation of that technology throughout the calendar year, internally and externally," he says.

The second advantage of the BI/search combo is that it makes BI more accessible. With the ability to access BI data through a simple text search, instead of writing a database query, staffers can get the data they need without waiting for BI specialists to craft a custom report.

"We are seeing a significant interest from clients in the notion of BI for the masses," says Gartner's Andrews. "They want to be able to get access to BI through a simpler process so that more people are able to solve the problems that BI addresses."

Thompson plans to achieve both goals with the NEA's rollout. Instead of requiring users to search each of the organization's four data silos separately, he says, "we wanted a product that would allow us to pull from any one of those databases, merge the data and give us a look we didn't have in the past."

With Fast Radar in place, he has already built some queries that go across three of the four categories. "If we get someone who has a legal case, we want to know if the person is a member and what we know about that member," Thompson explains. "Or if we help affiliates with legal bills, we want to [connect the legal information] to the financial database."

The NEA's project is still in the pilot stage, but it's already proving useful, he says. An executive at a state affiliate can look at a map of his state, click on a county, drill down into the local associations and analyze the membership types of an affiliate. Executives can also click to view a bar graph of the membership information and see where the local groups stand in meeting their financial goals.

"The drill-down capability is a tremendous plus," says Thompson. "It is not only the availability of the data but the presentation that is helpful." ▸

Robb is a Computerworld *contributing writer in Los Angeles.*

Cautionary Notes

Turning a Google-like search engine loose on corporate information sounds easy. It isn't.

- What looks like magic in vendor demos actually requires **painstaking, behind-the-scenes work** to map data queries to the data sets.
- Organizations need search algorithms that help employees find important reports within the company – **not necessarily algorithms based on popularity rankings**.
- Different departments (finance or sales, for example) will have **different search requirements**.
- **Access controls are required** so that employees can't gain unauthorized access to sensitive information.
- Companies may already have a **hodgepodge of search engines** embedded in various applications and portals.
- Buyers will have to choose among **various technology options**, ranging from Google's search appliance to sophisticated text-mining tools that analyze unstructured data.
- There are **numerous vendors** with advanced search technologies born in the academic and government sectors that are in search of problems to solve in the business sector.

SOURCE: JIM MURPHY, AMR RESEARCH INC.

Career Watch

Harry Wallaesa

TITLE: CEO

COMPANY: The W Group, Malvern, Pa.

Q&A

If there were a bumper sticker for aging CIOs, it might read, "Old CIOs Don't Die . . . They Just Become Consultants." And why not? After clawing their way to the top of the IT food chain and surviving countless battles with chief financial officers and other business executives, many IT chiefs look forward to a work environment that's less stressful, with more flexible hours and an opportunity to offer their expertise to peers in multiple industries.

Harry Wallaesa is familiar with the phenomenon. The former CIO at Campbell Soup Co. has led two IT management consulting firms: Aligne, which he formed in 1995 (and sold to Safeguard Scientifics Inc. in 1999), and The W Group, a 25-person firm made up of former CIOs and IT managers that he founded in 2002. *Computerworld*'s Thomas Hoffman spoke to Wallaesa about some of the benefits and nuances of becoming an IT management consultant.

Do you see many CIOs and IT managers moving into consulting? I do see a lot of that happening. The [career] life expectancy of CIOs continues to be relatively short. Secondly, there are a lot of CIOs who like the freedom of being able to apply their skills across a number of industries or at least a broader number of companies. A consultant's life is perversely attractive to some people.

Does your firm place these executives into interim positions with client firms? Or do they operate purely as consultants? We operate purely as consultants. Most of what we do is IT strategy, including sourcing strategies: what work should be done, who should do it and where it should be done.

What are the types of sourcing issues that clients are struggling with most? Everyone obviously wants to move from a fixed-cost model to a variable-cost model. Offshore for labor arbitrage has become more attractive for nearly everyone, and governance models for doing that have become more mature. No one wants to wake up and find out that they have 300 Cobol programmers who are no longer very productive.

What do CIOs and IT managers gain from being consultants, other than steady employment? Our company is built on a culture of teamwork, so you get to test your ideas against the ideas of a lot of smart people in the company. On top of that, you get to meet with a variety of different clients [who have] their own ideas about solving problems. So from a career development standpoint, it's pretty enriching.

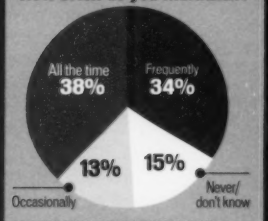
MULTITASKERS

Here, There & Everywhere

Are you reading this while checking your intrusion-detection logs, listening to your iPod, ordering lunch and surfing the Web for a new job? Maybe you're a multitasking genius, but then again, it could be that you wouldn't need a new job if you didn't try to do four things at once. Coming down solidly against multitasking is Louis Csoka, founder of Charlotte, N.C.-based Apex Performance Inc., a training firm that focuses on peak performance, as the name suggests. Citing the scientific evidence Csoka told HR.com, "People can only focus their attention on one thing at a time, and multitasking is not a skill that can be developed or applied." But people continue to think otherwise. A November survey by Apex of 516 U.S. employees found that women in particular are convinced that they multitask well, with 47% saying that they "multitask all the time and are really good at it," compared with just 29% of men.

– JAMIE ECKLE

How often do you multitask?



SOURCE: APEX PERFORMANCE NATIONWIDE TELEPHONE SURVEY, NOVEMBER 2006, CONDUCTED BY INTERNATIONAL COMMUNICATIONS RESEARCH, MEDIA, PA.

Chester Elton

MINI Q&A

***Computerworld*'s Thomas Hoffman spoke with Chester Elton, co-author of *The Carrot Principle* (Free Press, 2007), about how "purpose-based recognition" can improve worker productivity and generate stronger business results:**

What one thing can managers do better in terms of recognizing and rewarding individual contributors? Make it personal. So often, managers say they're going to give everybody Starbucks cards or give everybody hockey tickets. But they do that because they love hockey themselves. Learn what's important to the individual contributor. Make it personal, like a paid day off that doesn't count toward vacation.

Some people love being in the spotlight. Other people are terrified. Make it personal; get to know them, whether it's by taking them to lunch or conducting a survey.

So many people are bad managers not because they want to be but because they lack the training to be good managers.

– EXCERPTED FROM "WANT HAPPIER WORKERS? DROP THE STICK, OFFER CARROTS," *COMPUTERWORLD.COM*, JAN. 10

PAGE COMPILED BY JAMIE ECKLE.

Budgets, Use of Contractors Grow

CIO SURVEY

CIOs surveyed by Merrill Lynch last month said they expect their

up from 3.4% growth in 2006 but not quite matching the 4.4% growth of 2005. The CIO User Survey of 50 U.S.-based CIOs found that a larger portion of those budgets will be going to contractors. Although full-time staffers will still take the biggest chunk of IT budgets,

up from 9% in 2006.

20%
PERCENTAGE OF CIOS WHO SPENT LESS THAN THEY HAD INITIALLY BUDGETED IN 2006.

The Face of Management

SOURCE: HUDSON'S DIVERSITY IN THE WORKPLACE SURVEY OF 4,825 U.S. WORKERS, JANUARY 2007

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Being Smart About Smart Phones

Upper management has smart phones? They were bought with no input from the security manager? Well, how bad could it be? Oh, right, very bad. By C.J. Kelly

SECURITY MANAGER'S JOURNAL

I LIKE TO think that not very many things can surprise me. But recently I got a big surprise that seemed to come out of nowhere, and it wasn't that I had won the lottery.

The IT department let me know that the help desk had been asked to install client software that would allow e-mail to synchronize with upper management's new smart phones.

Upper management has smart phones? Why didn't anyone tell me that earlier?

My fault, really. We don't have a specific security policy for mobile devices. Of course, we hadn't needed such a policy because this state agency has never been all that mobile. It just goes to show that you can never be too prepared.

Had a policy been in place, we could have avoided what has turned into a security problem that's hard to fix because upper management has a vested interest. We could have avoided the problem by setting requirements for devices like smart phones that would have satisfied my security concerns. With no policy in place, managers got what was cheap, with no real clue about what the security implications might be.

And what are those implications? For starters, these smart phones require client-side software that hooks into Microsoft Outlook, and for synchronization to occur, it seems that the user's PC has to be left running with Outlook open.

The list grows from there. E-mail transfers aren't encrypted. The phones aren't password-protected. They can't be managed remotely so that data could be wiped clean if one were lost or stolen.

But the worst thing of all, from my perspective, is that e-mails are cached on the Internet service provider's servers for up to seven days. That particular feature lets smart-phone owners access their e-mail via the Web.

That's a big security hole with dubious benefits. I mean, if you can get your e-mail at work or home and you are traveling with a smart phone, why do you need another alternative? We talked to the ISP's representatives and told them we did not want e-mail cached on their servers. Their answer: "That's the way it works." I was striking out.

I told my boss about my concerns, but he said management wanted smart phones. You can't really argue that point, but I wanted to document the risks we were opening ourselves up to, so that management would know just what was at stake.

Meanwhile, I started to explore the idea of upgrading to phones that would meet my security requirements. Yeah, it could be done — at twice the price. Is this some vendor plot?

> Clearly, some smart phones are smarter than others. So are some security managers, I guess.

What We've Got

Our managers are actually using two different models of the Palm Treo, the 650 and the 700p. Of those, the 650 is worse, but neither offers everything I want.

The Treo 650 seems like a good phone for a consumer or a small-business user. You can use it to surf the Web, send photos, read and send e-mail and text messages, and, of course, talk. You can also use it to access your computer remotely, and that gives me the security willies.

Then there's that client-side software. I wouldn't object if it were used solely for syncing the device when connected to the computer. But having to keep a computer running to make sure the phone does what it's supposed to do is a real problem.

The Treo 700p offers more of what we need. Palm says that this smart phone uses a Secure Sockets Layer protocol to synchronize with an Exchange server, which eliminates the need to leave the user's PC running and provides the necessary encryption.

However, our state e-mail SSL certificate is apparently not compatible with or can't be added to the phone's list of acceptable certificates. So the phones can't connect directly with the state e-mail system. That seems like a problem that could be corrected by the phone vendor, but we aren't hearing the vendor say it will solve that problem for us.

What's more, we've had nothing but hardware problems with these phones, including spontaneous rebooting and intermittent synchronization.

So, what are the alternatives? Well, Palm's Web site tells me that the Treo 700w and 700wx "deliver everything you need without compromise." Ah, great, because I feel as if we've compromised our security rather severely with the phones we have. Our IT department tells me that we can get remote management software for these phones. That's certainly a plus.

Clearly, some smart phones are smarter than others. So are some security managers, I guess, since I'm now scrambling to care of all of this before we have a real security disaster on our hands. It all could have been handled ahead of time with a formal requirements-gathering and then a quick assessment of the best tool that would meet both IT and security needs. That didn't happen, and now I'm kicking myself.

This is where we stand: I have contacted the ISP's reps and have let them know that the Treo phones we have don't meet our technology or security standards. I have asked for a trade-in for the better phones, and I'm hoping we can arrange for a substantial discount. I await their proposal.

Meanwhile, potentially sensitive agency e-mails are sitting on servers somewhere "in the cloud." You know, this would be a really good time to win the lottery. ›

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "C.J. Kelly," whose name and employer have been disguised for obvious reasons. Contact her at mscjkelly@yahoo.com, or join the discussions in our security blogs: **computerworld.com/blogs/security**.

To find a complete archive of our Security Manager's Journals, go online to **computerworld.com/secjournal**.

SECURITY LOG

Trade-Secrets Case Ends in Guilty Plea

Cell development technologist Edward Grande pleaded guilty to one count of stealing trade secrets. According to court documents in Connecticut, Grande downloaded research about AA batteries to his computer and sent it to two rivals of his employer, Duracell. The rivals reportedly had not solicited the information and therefore sent it back to Duracell. Grande could face up to 10 years in prison and a fine of as much as $250,000.

Worm Creator Gets Probation, Net Ban

Samy Kamkar, who pleaded guilty to a felony charge for creating the first self-propagating cross-site scripting worm and placing it on MySpace.com, was sentenced to three years of probation and 90 days of community service. He also is barred from personal use of the Internet for an undetermined length of time. Kamkar's worm was designed to help him meet girls.

Researchers Rush To Defend Teacher

Computer researchers are teaming up to prove that a failure to understand the technology involved led a Connecticut jury to convict a substitute teacher on four counts of risk of injury to minors. According to *SecurityFocus* magazine, prosecutors convinced jurors that Julie Amero had clicked on pornographic links, causing offensive pop-up ads to appear as she was using the computer for instruction. The researchers are pointing to evidence that the Windows 98 SE machine had an expired antivirus subscription and was infested with spyware.

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8:45am to 9:15am	**Market Overview and Trends** Ken Biba, Managing Director, Novarum
9:15am to 9:45am	**Wireless at the State University of New York (SUNY) – Farmingdale** Gladson George, Manager, Network Administration, State University of New York (SUNY) - Farmingdale
9:45am to 10:00am	**Refreshment and Networking Break**
10:00am to 10:30am	**Ubiquitous Wireless at Sun Health** Larry Stillman, Director of Technology and Chief Technology Officer, Sun Health Corporation
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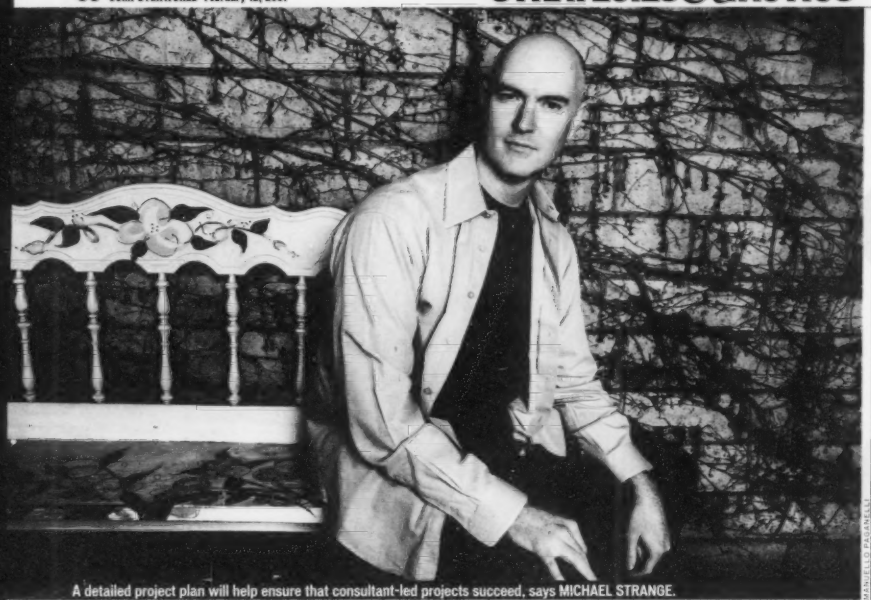

A detailed project plan will help ensure that consultant-led projects succeed, says MICHAEL STRANGE.

DEMAND A STRONG PROJECT PLAN

IT MENTOR

When you contract a project, make sure the provider's road map will lead to success. Here's how. BY MICHAEL STRANGE

YOU'VE ENGAGED a reputable consulting firm to perform a large systems project. You've prepared an RFP, carefully reviewed the responses, scrutinized the consultancy's oral presentation, and ultimately negotiated and signed a well-written statement of work (SOW).

Don't stop there.

A clearly defined SOW may place you on the right path, but it doesn't ensure success. In reality, the project manager engaged to run your project may not even be the person who wrote the SOW.

As an IT leader, you can and should do more to help advance your consulting projects from contract to execution. A careful review of the project plan is one way to facilitate this transition, and it's an underused and surprisingly effective method of finding early warning signs. So spend time reviewing the project plan and asking questions. Here's what to look for:

1. Analysis, preparation and documentation tasks should be well defined. Unless the requirements are 100% complete, most software projects require extensive analysis and planning in advance of design. For example, make sure there are tasks defined for process analysis, requirements definition and all related areas. Make sure there are tasks to discuss security, response times, user roles, data conversion, retention, reporting, preparation for testing (not just testing execution) and so on.

When evaluating the level of detail, many managers use the "40 hour" rule, which states that all tasks must take less than 40 hours. But it's more useful to include preparatory and documentation tasks. For example, look at how this project plan describes the steps for documenting requirements:

- Gather requirements, accounts payable (40 hours).
- Gather requirements, cash application (40 hours).
- Gather requirements, accounts receivable (40 hours).
- Finalize and get sign-off on requirements (40 hours).

The project team has two full-time people dedicated to documenting requirements, so they should be able to complete this segment in two weeks.

But consider rewriting the plan as follows:

- Eight meetings, accounts payable, two hours each (16 hours).
- Preparation, one hour per meeting (eight hours).
- Document results, four hours per meeting (32 hours).
- Repeat the pattern for the other functional areas.

The new plan shows 56 hours of effort, rather than the 40 in the original. If this pattern holds throughout, you may be starting your project 40% over budget and not know it. With the rewritten plan, team members will see that the two weeks that had been allocated is not enough, especially given the difficulty of scheduling meetings. And if they can't tell you this kind of detail, they haven't thought the project through.

2. The allocation must make sense. Check the high-level allocation of effort. If the project is "waterfall" style, calculate the percentage of hours spent on each phase (analysis, design, construction, testing and implementation). If the project is "prototype" style, calculate the percentage of hours spent getting to the first and subsequent milestones. Take project management tasks out. The percentages should correspond to the maturity of your project. If the requirements are already defined, then don't accept the plan if 30% of the hours are allocated to analysis. If the project is in early stages of definition (and may evolve as work progresses), then don't accept a plan with 5% analysis.

3. Milestones should come every 30 days or less. One of the easiest and most effective ways of managing multimonth systems projects is to use well-defined milestones. Demand a formal presentation of the design at one milestone. Schedule a review of the first iteration of prototyping at another. For straightforward custom-development projects, the milestones should be self-evident, and with formal review, they can be early indicators of success or failure. For newer, more complex projects (such as business intelligence or master data management), make sure your consultants have the expertise to define practical milestones.

4. Contingency must be quantified, not buried. Contingency should provide a "relief valve" for unknown problems or unplanned work, and it should be included in virtually every project plan. If the project manager tells you that no contingency is required, his inexperience with the unknowns of large projects is showing. In my experience, once a custom development project is designed and a plan is carefully prepared, a 10% to 15% contingency is still warranted. More or less may be required, depending on the maturity of the project and the organization.

5. Project management steps should be defined, not assumed. Project management is a series of tasks, and those tasks should be included in the plan. Tasks such as documentation review and preparation of presentations and status reports are easily quantified. Don't accept a plan that includes technical tasks only and then adds just one person to serve as the project manager.

If you follow these rules, the project should progress cleanly. And since the plan will clearly describe tasks to be performed, you'll be better able to spot problems before they get out of control. ▸

Strange is a client partner with Odesus Inc. in Los Angeles. Contact him at mstrange1234@yahoo.com.

Then Follow Through

Signing a consulting contract isn't enough. Follow these steps to help the consultants spend more time on expertise-driven analysis and less time on logistics.

1. Hold a kickoff meeting. Explain the goals, objectives and roles to everyone involved.

2. Be honest with your team. Clearly explain why outside help is needed.

3. Facilitate scheduling. Don't let the consultants flounder trying to schedule meetings.

4. Hold intermediate discussions. Help them focus on what's practical for your environment.

5. Help with formats. If your organization has standards for presenting business cases, recommendations and ROI calculations, give these to the consultants in advance.

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BRIEFS

Buckingham Tapped As CIO at Avaya

LORIE BUCKINGHAM has been named senior vice president and CIO at Avaya Inc., a Basking Ridge, N.J., maker of communications networks. Previously, Buckingham was CIO and senior vice president of the global services group at Visteon Corp.

Northrop Grumman Names Norton CIO

Northrop Grumman Corp. has named **DOUGLAS J. NORTON** CIO for its Linthicum Heights, Md.-based Northrop Grumman Electronic Systems unit. Norton joined the company in 1986 as a software engineer. He has served in various management positions in engineering and IT, most recently as director of operations for electronic systems within Northrop Grumman's IT sector.

Neumann Promoted At American Century

GUDRUN NEUMANN, senior vice president of IT at American Century Investments Inc., was promoted to chief technology officer at the Kansas City, Mo.-based financial services firm. Prior to joining the company in 1998, she spent 16 years at IBM Global Services' banking, finance and securities organization.

Levan Named CTO At Mobile Airwaves

Mobile Airwaves Inc., a maker of mobile communications software in San Francisco, has appointed **WILLIAM C. LEVAN** as CTO and vice president of engineering. Previously, Levan was CTO at Convergence Communications; he also held senior positions at Warner Communications.

Easley Chosen as Trend Integration CIO

DAN EASLEY has been appointed CIO at Trend Integration LLC, a Cherry Hill., N.J.-based maker of recruiting software. Previously, he was a service integration consultant at Commerce Bancorp Inc.

BART PERKINS

Reviewing the 'Game Tapes'

FEW ORGANIZATIONS consistently deliver perfect projects. But just as good football coaches study game tapes to improve their teams' performances, the best IT groups review completed projects to make necessary improvements to their organizations. Last month, I explained the benefits of a postproject review. Now let's look at how to conduct one.

BART PERKINS is managing partner at Louisville, Ky.-based Leverage partners Inc., which helps organizations invest well in IT. Contact him at **BartPerkins@LeveragePartners.com**.

Postproject reviews vary widely (even within organizations), ranging from impromptu 20-minute brainstorming sessions to comprehensive multiweek processes. To ensure consistency, you should establish a standard template and conduct PPRs with the same level of rigor accorded to projects. The more effort you invest in the PPR, the more insights and improvements you will generate.

The cornerstones of a successful PPR are effective leadership, thorough preparation, committed participation and follow-through.

LEADERSHIP. An effective PPR requires management support, and selecting an appropriate PPR leader is crucial. Choose a senior project manager with experience and perspective. Don't use a project team member; choose a person who is largely immune to project politics. Project managers from other areas, internal auditors and external consultants are good candidates.

PREPARATION. This crucial step is often minimized or eliminated, but proper preparation significantly enhances PPR quality, shortens the length of PPR meetings and reduces the number of arguments. Here's how the leader should prepare:

- **Reassess project context.** Review relevant project documents, including the business case, work plans, change requests and contracts. Critically reexamine business goals, project objectives and assumptions, as well as risks and the associated risk-mitigation strategies. Reassess the likelihood of achieving the proposed business benefits in the current marketplace.
- **Analyze statistics.** Projects often elicit strong emotional responses from team members, but objective measurements help decrease negative reactions. It's harder to attack a statistic than a personal opinion. Compare initial estimates of project costs, schedules and deliverables with actual data. Significant differences (increases or decreases) usually indicate insufficient research or unforeseen obstacles. Gauge overall project stability by assessing revisions to scope, budget, schedule and resources.
- **Interview project participants.** Documents and statistics rarely tell the entire story; interviews add context and promote understanding. Interview key project team members and executives (IT, business and external) to add important perspective, especially for contentious issues. Interviews frequently reveal unrealistic (often mandated) deadlines, overly constrained budgets, insufficient staffing, inadequately tested software packages or corporate in-fighting, which greatly affect project success. Don't blame the project team for circumstances beyond its control.
- **Establish PPR meeting logistics.** Determine participants. Include key representatives from all groups that worked on (or benefited from) the project, as well as multiple levels of management and critical outsourcers. Logistics can be complex when large, global project teams and outsourced projects are involved. Multiple meetings or videoconferences may be required. E-mail is *not* acceptable!

PARTICIPATION. PPR meetings provide opportunities to understand different perspectives, gain consensus and generate constructive suggestions. At a minimum, the PPR meeting should address these questions:

- What went well, and what didn't?
- What obstacles impeded the project, and what would have helped?
- Where do processes need to be altered, improved or replaced?
- How effective were project communication and executive support?

Maintain a constructive, nonadversarial focus, and aim for a reasonable level of consensus. If large projects require multiple PPR meetings, any significant differences in conclusions need to be discussed and resolved.

FOLLOW-THROUGH. PPR results must be integrated and published. Agreements and action items should be handed off to an executive who will hold people accountable.

Conducting an excellent PPR is not enough. Just as the cobbler's children frequently have no shoes, IT organizations often focus on delivering business capabilities but fail to invest enough time and money to fix their internal processes. Without conscious effort and commitment to improvement, few changes will occur and subsequent PPRs will reveal essentially the same problems.

Many organizations speed through the PPR process, mistakenly believing that they already know the answers or don't have time to conduct comprehensive reviews. But shortcuts prevent them from reaping the full benefits of the project team's experience.

In addition, many companies assume that unsuccessful projects are exempt, but failures offer invaluable opportunities for learning.

Postproject reviews enable organizations to acknowledge (and maximize) their strengths, address their weaknesses and brainstorm improvements. Properly conducted, PPRs leverage valuable project experience to enhance future IT delivery capability.

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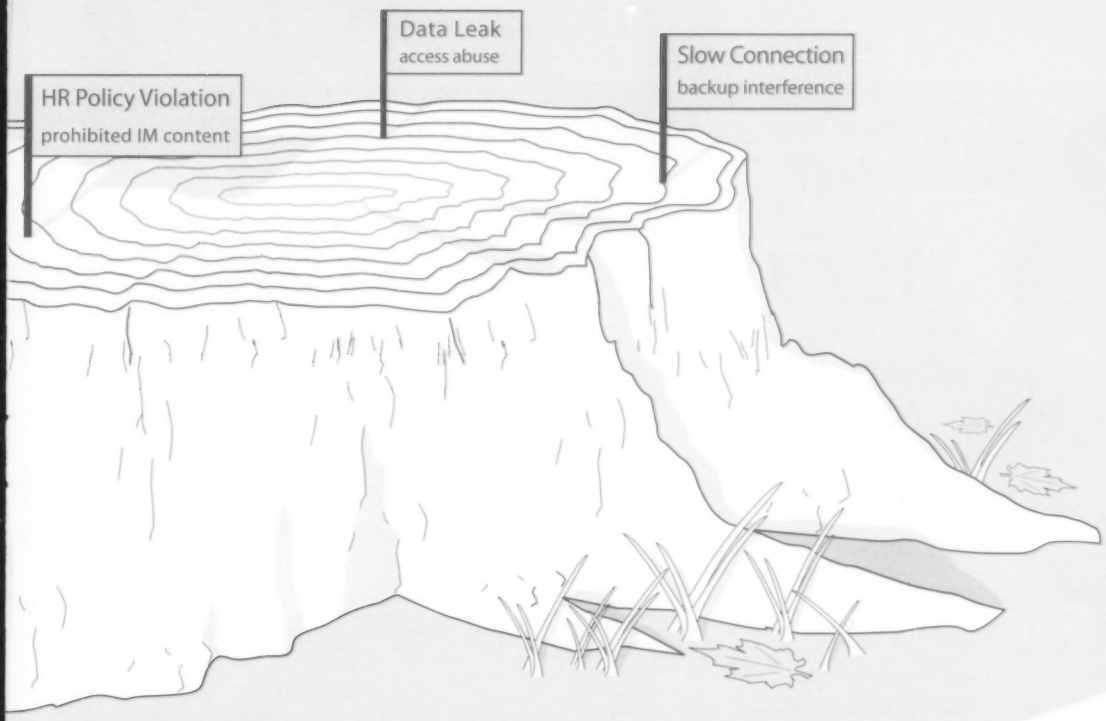

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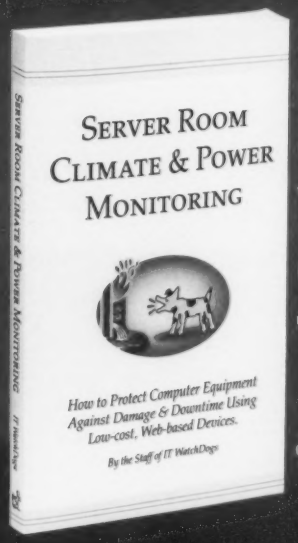
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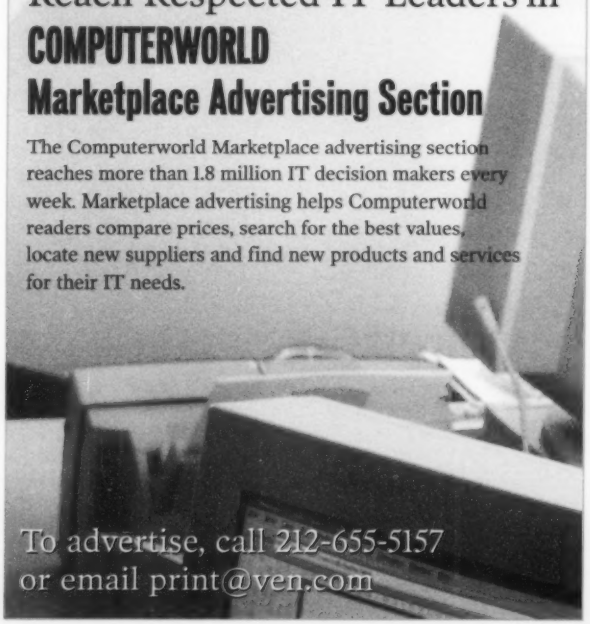

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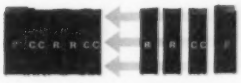

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Security

driven, they said, by the accelerating trend among companies to collaborate online with their suppliers, business partners and customers.

The "de-perimeterization" of corporate networks that has resulted from this collaboration is forcing companies to completely rethink some of their entrenched security procedures, said Paul Simmonds, global information security director at Imperial Chemical Industries PLC in London.

Future security strategies will need to focus on the fact that access to corporate data can no longer be contained within traditional network boundaries, Simmonds said. "What's coming is IP anytime, anyplace, anywhere," he said, adding that the role of IT security organizations will be to enable that access — not to hinder it.

"In most cases, network security perimeters will disappear," Simmonds predicted. "It's a question of how fast, how soon and whether you decide to control it."

Crossing the Moat

Older "castle and moat" security architectures assumed that a firewall would keep out all intruders, said Deven Bhatt, director of corporate security at Arlington, Va.-based Airlines Reporting Corp., which provides ticket distribution and settlement services to more than 145 air and rail carriers. Increasingly, though, firewalls are becoming "useless," he added. "Every day, you're creating more and more openings in the firewall, so it isn't even a firewall anymore."

What's needed now is the ability to more thoroughly authenticate and authorize users on a network and then to monitor all their activities much more closely than before, Bhatt said. For instance, his company has deployed network behavior modeling tools to help it monitor traffic for anomalous behavior.

Dennis Hoffman, vice president of information security at EMC Corp. in Hopkinton, Mass., said companies will have to adopt a three-pronged approach as they seek to implement information-centric security strategies. Hoffman's mantra: "Maximize access control, minimize the amount of data that leaves your security zone, and encrypt the rest."

In order to allow authorized users to access information whenever and wherever they want, the authentication of users and computing devices has to become a top priority, said Mike Schutz, a group product manager in Microsoft Corp.'s networking and security unit.

The security of a network typically has been defined by the firewall erected in front of it. Now the focus should be on extending the network boundary as needed by users, said Schutz. "Your laptop, regardless of where you go, should be part of the network," he said.

Microsoft has attempted to support that approach internally by creating policy-based logical network segments in which all users and devices are authenticated and authorized via a combination of IPsec standards and Active Directory. Schutz said the architecture ensures that users authorized to operate in a particular network segment can do so regardless of where they're located geographically, while all others are shut out.

Such access is based "not on where I'm standing, but on the trust level of my identity and the security and state of the device," he said.

A key component of an information-centric security strategy is to first understand where your data is and how it's used and accessed, said Art Coviello, president of conference organizer RSA Inc., a division of EMC.

> **"In most cases, network security perimeters will disappear. It's a question of how fast, how soon and whether you decide to control it.**
>
> PAUL SIMMONDS, GLOBAL INFORMATION SECURITY DIRECTOR, IMPERIAL CHEMICAL INDUSTRIES PLC

"You can't secure what you can't manage," Coviello said at a Q&A session with reporters, adding that combining information management and security capabilities is of "paramount" importance.

"Security has to be built more and more into an information infrastructure for it to be successful," Coviello said. "It's no longer enough to take an outside-in approach by building a fortress."

Some of the changes now being implemented aren't entirely new, said Lynn Goodendorf, vice president of information privacy protection at the Atlanta-based U.S. subsidiary of InterContinental Hotels Group PLC, which owns hotel brands such as Holiday Inn and Crowne Plaza.

"But there is a new emphasis on [data protection] now because of the maturity of the information security profession," Goodendorf said. Increasingly, she added, corporate executives are also "starting to think of information as an asset that has some type of financial value to the business."

PCI Security Standard Struggles to Get Full Credit

SAN FRANCISCO

JUDGING BY the buzz at last week's RSA Conference 2007 here, few data security standards have attracted as much attention – or generated as much angst – inside IT departments as the one being pushed by Visa U.S.A. Inc., MasterCard International Inc. and other credit card companies.

The Payment Card Industry (PCI) Data Security Standard, which prescribes a set of 12 security controls for all businesses that process credit or debit card transactions, has emerged as a leading example of the private sector's effort to regulate itself when it comes to protecting data.

But at the RSA conference, there was a very mixed verdict on the PCI standard's effectiveness. Some attendees worried that by stipulating specific controls instead of broad security objectives, PCI may be restricting corporate options. Others argued that the rules are too tough on smaller merchants. And one of the biggest concerns was that the standard is essentially forcing giant retailers, midsize merchants and mom-and-pop shops alike to become IT security experts.

"I see pushback from the information security community," said Lynn Goodendorf, vice president of information privacy protection at InterContinental Hotels Group's U.S. subsidiary. "I'm surprised by it, but I do feel that there has been some resistance."

Goodendorf added that some security managers don't like the idea of implementing specific technology controls dictated by an external entity.

The PCI standard broadly took effect more than 18 months ago, but many businesses began paying serious attention to the rules only after the credit card companies warned in December that they would begin assessing stiff fines for noncompliance starting next October.

The slow adoption to date reflects the lack of enforcement teeth behind the standards, according to several participants in a PCI roundtable discussion at the CSO Interchange Forum, which was held in conjunction with the RSA conference. Unless enforcement is visible and stringent, the standard is unlikely to win widespread acceptance, some of the roundtable participants said.

Others, though, see PCI as the card industry's best hope for staving off federal intervention amid growing consumer and congressional concerns about identity theft and fraud resulting from retail security breaches. They also said that telling IT shops exactly what security controls need to be implemented is the only way of ensuring that all the companies covered by the rules understand them.

The PCI standard "is definitely not easy to do, and it's very time-consuming," said Deven Bhatt, director of corporate security at Airlines Reporting. Some of the criticism of the standard stems from the perception that it tells companies how to run their businesses, Bhatt added.

But PCI "has done a lot more good than people think," he said. "The bar had to be raised because of all the breaches that are going on."

The consensus so far appears to be that PCI "is a good road map," said Seana Pitt, vice president of merchant policy and data quality at American Express Co., one of PCI's proponents. "But there are opportunities for more clarifications." Pitt chairs the PCI Security Standards Council, a recently created group that's responsible for developing and maintaining the security standard.

For instance, a frequent request is to find a way to map the PCI controls to established information security standards, such as the ones approved by the ISO international standards body, Pitt said. There are also calls for more clarity on how the PCI council plans to enforce rules compliance.

– JAIKUMAR VIJAYAN

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FRANK HAYES ■ FRANKLY SPEAKING

Trust Isn't Security

IN LANCASTER, PA., LAST WEEK, the county coroner was brought to court in handcuffs. A grand jury indicted Dr. Gary Kirchner, charging him with giving out his account name and password for a county Web site that contained confidential police 911 information. What kind of information? Names of accident victims and police informants, medical conditions, witness accounts, autopsy reports and not-yet-substantiated accusations. The site was the access point for real-time data generated and used by firefighters, ambulance crews and other emergency responders.

And who did the coroner allegedly give his password to? Newspaper reporters. Now *there's* a trusting user.

Wait, it gets scarier. According to the grand jury, the reporters said Kirchner gave them the password because he didn't want to be bothered with their phone calls asking for details about homicides, fatal accidents and suspicious deaths.

The reporters weren't charged with illegally accessing the Web site, because they testified under immunity from prosecution. Kirchner has denied the charges against him.

But the grand jury report quotes e-mails and computer forensic evidence that paint an ugly portrait of the coroner (who apparently ignored security policies and gave away his password within weeks of taking office in 2004) and the reporters (who ignored "authorized personnel only" warnings and accessed confidential information hundreds of times over an 18-month period).

And where was IT all this time? Not noticing, mostly. Eventually, an IT staffer checked Web site logs and discovered that the site was accessed more than 50 times in two weeks from computers at a newspaper office. But that was only after one reporter mentioned in a news report that some information came from the Web site, and a reporter from a competing newspaper called the county to find out why he didn't have access.

That's when a supervisor realized there had been a security breach, a police investigation began, logs were checked, passwords were changed, and the grand jury went to work.

Until then, everyone apparently assumed that because users were trusted with the information on the emergency 911 Web site, they could be trusted to keep it secure. Now *there's* a trusting IT department.

That trust was misplaced. And not just trust in the coroner. After the reporters' intrusion was discovered, logs were scrutinized more carefully. In 2006, four emergency responders were prosecuted for giving out their passwords, and two other people were arrested for accessing the site.

According to the grand jury report, the results of those password leaks weren't trivial. In one incident, a 911 caller reported suspicious drug activity in his neighborhood. His name was supposed to be kept confidential. Because of the password leaks, it wasn't. "That caller's name was made known on the streets, and the caller was severely beaten in retaliation," the grand jury report said.

We want to trust our users. We have to trust them, mostly — we can't afford to watch them every second. And most of them are worthy of that trust.

But some aren't.

Trusting is nice. It's sociable. It's convenient.

Don't do it.

We have the technology to control network access to confidential information. Beyond passwords, we can limit users' access with IP address whitelists and blacklists. We can use VPNs. We can scan logs after the fact, looking for IP addresses that don't belong. We can't catch every breach, but we likely can discover some accounts that have been compromised — and some users who can't be trusted.

Yes, that gets ugly and unpleasant. So does what comes after: the why, the how-bad and the what-to-do-now.

But the alternative is a lot uglier. The results could be lost business and exposed customer information.

Or — as they're learning in Lancaster — assaults and handcuffs.

FRANK HAYES, *Computerworld's* senior news columnist, has covered IT for more than 20 years. Contact him at **frank_hayes@computerworld.com.**

Not What We Had in Mind

A data center operator is clearly hunting for something when this pilot fish, whose title is "virtual computing architect," happens into the server room. Can I help? fish asks. "A customer called and said a particular server was having an issue and needed rebooting," operator tells him. Fish explains that the server he's looking for is a virtual server – there will be a physical server that has many virtual servers running on it. "I realize that," says operator. "I was just going to reboot the physical server because I don't have access to that specific virtual server."

SHARK TANK

Flipped Out

New senior programmer has been on the job a few days when his boss wants to introduce him to the HR director. But the programmer has something else on his mind. "He was frustrated because he'd been working on a report and it was only printing out odd-numbered pages," says a pilot fish on the scene. "He had printed several copies, and they kept coming out the same way. With the HR director watching, his boss picked up the printed report, flipped it over and showed him the 'missing' even-numbered pages. I wonder what the HR director thought when he was then introduced as 'our new senior programmer.'"

Aha!

This pilot fish works in building maintenance, not IT, so when an IT tech arrives at his basement office in a big hurry to upgrade fish's computer, fish says sure and returns to his work. But 15 minutes later, tech has been joined by two others, all trying to figure out why the software update refuses to take. Did you modify this machine? tech asks fish. No. All the machines here are running Windows, right? "I don't have a PC here," fish says. "That machine is mine. It's a Mac." Reports fish, "All three looked at each other and left in a hurry."

Warm All Over

There's a flight delay at the airport, so this pilot fish figures she'll get a wireless connection and do a little work. "This was a new airport for me, and I couldn't find any designated hot spots as I walked through the gate area," says fish. "As I emerged into the terminal, I spied the information desk. I asked a pleasant young lady where I might find a hot spot. Her reply? "We don't have any hot spots – but you can get wireless anywhere in the airport."

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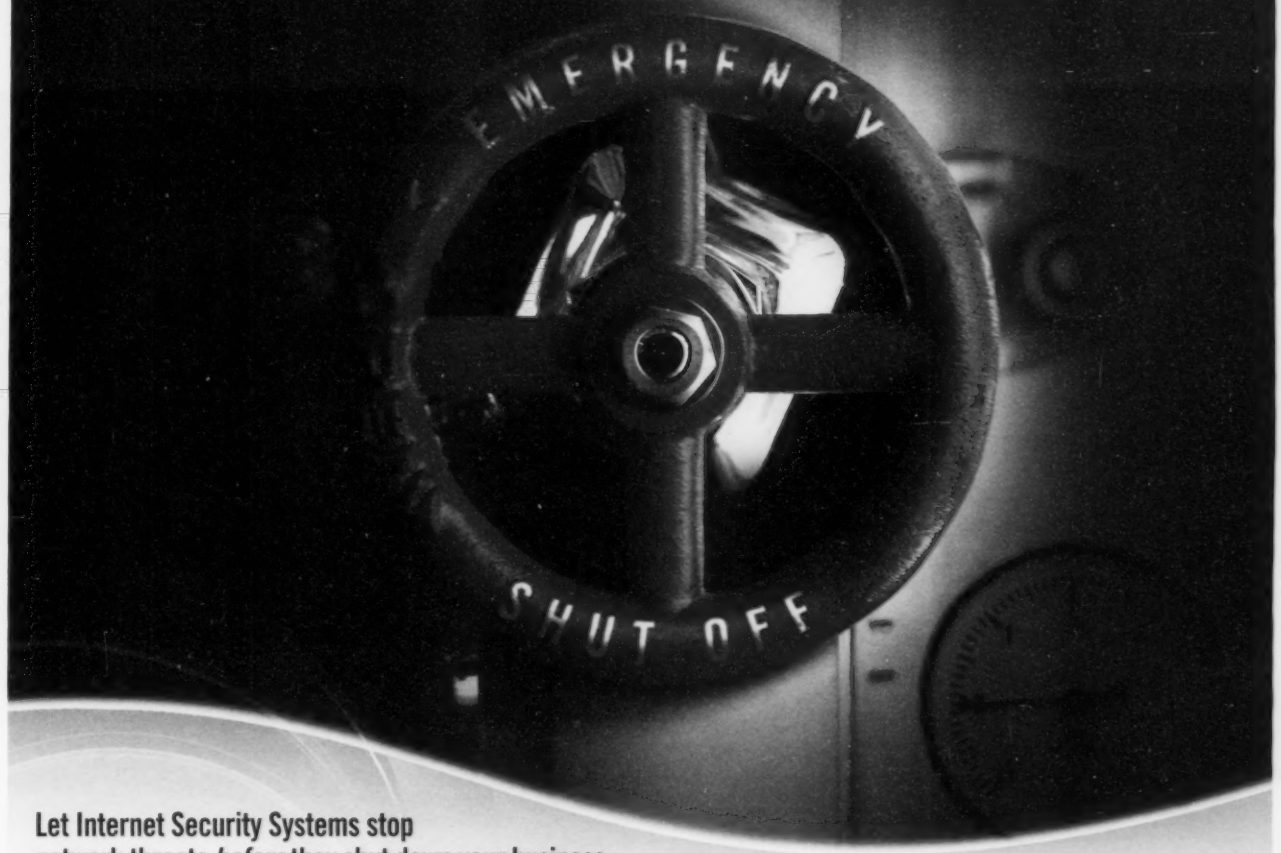

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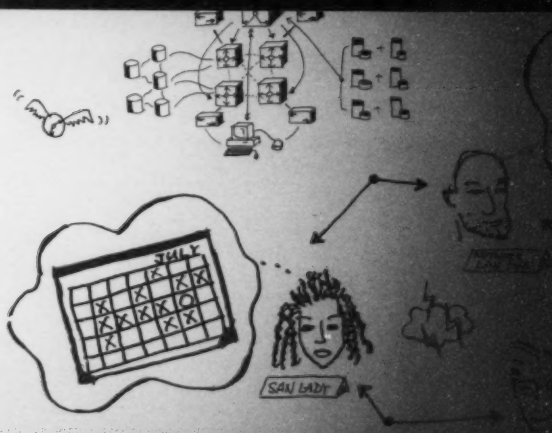

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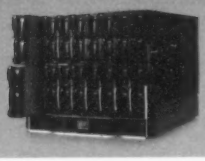

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